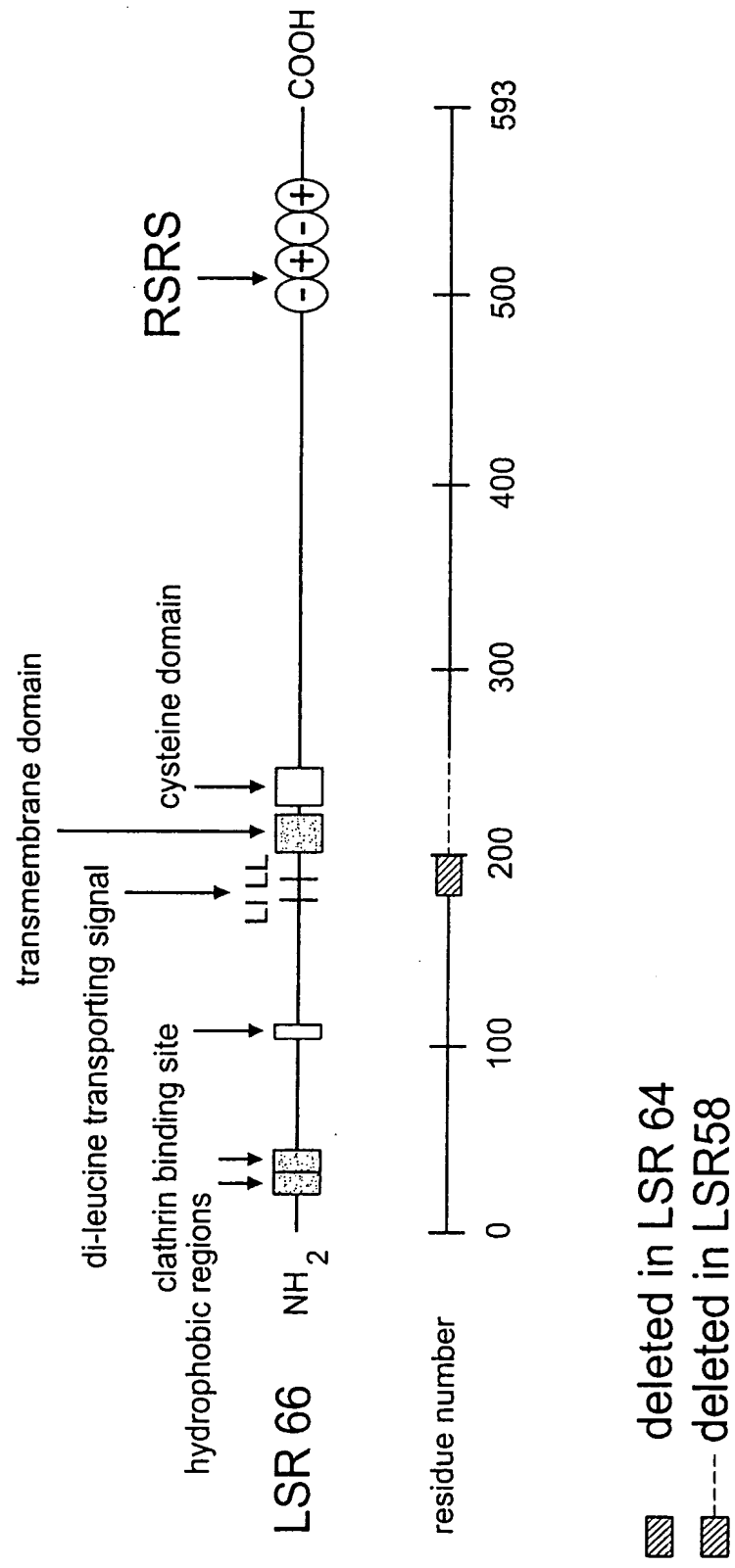


FIG. 1



LSR1.Hs (SEQ ID NO:8)	MQQDGLGVGTRNGSGKGRSVHPSWPWCAPRPLRYFGRDARARRAQTAAALLAGGLSRGL
LSR1.Rn (SEQ ID NO:2)	-----MAPAAGACAGAP
LSR1.Mm (SEQ ID NO:16)	-----MAPAASACAGAP

	FFA
LSR1.Hs (SEQ ID NO:8)	GSHPAAGRDAVVFVWLLLSTWCTAPARAIQVTVSNPYHVVLFPQVTLPCITYQMTSTPT
LSR1.Rn (SEQ ID NO:2)	DSHPAT-----VVFVCLFLIIFCPDPASAIQVTVSDPYHVVLFPQVTLPCITYQMSNTLT
LSR1.Mm (SEQ ID NO:16)	GSHPAT-----TIFVCLFLIYCPDRASAIQVTVPDPYHVVLFPQVTLHCTYQMSNTLT
	****, ****, *****
LSR1.Hs (SEQ ID NO:8)	QPIVIWKYKSFCDRIADAFSPASVDNQLNAQLAAGNPGYNPYVEQDSVRTVRVVKQ
LSR1.Rn (SEQ ID NO:2)	VPIVIWKYKSFCDRIADAFSPASVDNQLNAQLAAGNPGYNPYVEQDSVRTVRVVKQ
LSR1.Mm (SEQ ID NO:16)	APIVIWKYKSFCDRVADAFSPASVDNQLNAQLAAGNPGYNPYVEQDSVRTVRVVKQ

LSR1.Hs (SEQ ID NO:8)	GNAVTLGDYYQGRRITITGNADLTFDQTAWGDSGVVYCSVVSAQDLQGNNEAYAEITVLG
LSR1.Rn (SEQ ID NO:2)	GNAVTLGDYYQGRRITITGNADLTFEQTAWGDSGVVYCSVVSAQDLQGNNEAYAEITVLG
LSR1.Mm (SEQ ID NO:16)	GNAVTLGDYYQGRRITITGNAGLTFEQTAWGDSGVVYCSVVSAQDLQGNNEAYAEITVLG

LSR1.Hs (SEQ ID NO:8)	RTSGVAEELPGFQAGPIEDWLFVVVCLAAFLIFLLLGICWCQCCPHTCCCYVRCPCCPD
LSR1.Rn (SEQ ID NO:2)	RTSEAPEELPGFRAGPLEDWLFVVVCLASLLFLLLGICWCQCCPHTCCCYVRCPCCPD
LSR1.Mm (SEQ ID NO:16)	RTSEAPEELPGFRAGPLEDWLFVVVCLASLLFLLLGICWCQCCPHTCCCYVRCPCCPD
	, *, *****
LSR1.Hs (SEQ ID NO:8)	KCCCPEALYAAGKAATSGVPSIYAPSTYAHLSPAKTPPPP-AMIPMGPAYNGYPGGYPGD
LSR1.Rn (SEQ ID NO:2)	KCCCPEALYAAGKAATSGVPSIYAPSIYTHLSPAKTPPPPAMIPMGPPY-----GYPGD
LSR1.Mm (SEQ ID NO:16)	KCCCPEALYAAGKAATSGVPSIYAPSIYTHLSPAKTPPPPAMIPMRPPY-----GYPGD

LSR1.Hs (SEQ ID NO:8)	VDRSSAGGQGSYVPLLRTDSSVASEVRSGYRIQASQQDDSMRVLYYMEKELANFDPSR
LSR1.Rn (SEQ ID NO:2)	FDRHSSVGGHSSQVPLLRDVDGSVSSEVRSGYRIQANQQDDSMRVLYYMEKELANFDPSR
LSR1.Mm (SEQ ID NO:16)	FDRHSSVGGHSSQVPLLREVDGSVSSEVRSGYRIQANQQDDSMRVLYYMEKELANFDPSR
	, *, *****
LSR1.Hs (SEQ ID NO:8)	PGPPSGRVERAMSEVTSIHEDDWRSRPSRGPALTPIRDEEWGGHSPRSPRGWDQEPAREQ
LSR1.Rn (SEQ ID NO:2)	PGPPNGRVERAMSEVTSIHEDDWRSRPSRAPALTPIRDEEWNHRSPQSPRTWEQEPLQEQ
LSR1.Mm (SEQ ID NO:16)	PGPPNGRVERAMSEVTSIHEDDWRSRPSRAPALTPIRDEEWNHRSPRSPRTWEQEPLQEQ
	****, *****
LSR1.Hs (SEQ ID NO:8)	AGGGWRARRPRARSVDALDDLTTPSTAESGSRSPSTNGGSRAYMPPRSRSDDLYDQDD
LSR1.Rn (SEQ ID NO:2)	PRGGWGSGRPRARSVDALDDINRPGSTESGRSSPPSSGRRGRAYAPRSRSDDLYPD
LSR1.Mm (SEQ ID NO:16)	PRGGWGSGRPRARSVDALDDINRPGSTESGRSSPPSSGRRGRAYAPRSRSDDLYPD
	****, *****

FIG. 2A

LSR1.Hs (SEQ ID NO:8)	SRDFPRSRDPHY-DDFRSRERPPADPRSHHRTDPRDNGSRSGDLPYDGRLLLEEAVRKK
LSR1.Rn (SEQ ID NO:2)	PRDLPHSRDPHYDDIRSRD-PRADPR-SRQSRDPRDAGFRSRDPQYDGRLLLEEALKKK
LSR1.Mm (SEQ ID NO:16)	PRDLPHSRDPHYDDLRSRD-PRADPR-SRQRSHDPRDAGFRSRDPQYDGRLLLEEALKKK
	<div style="text-align: center;">+--+</div> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>
LSR1.Hs (SEQ ID NO:8)	GSEERRRPHKEEEEE--AYYPPAPPYSETDSQASRERRLKKNLALSRESLVV
LSR1.Rn (SEQ ID NO:2)	GSGERRRVYREEEEEEE-GQYPPAPPYSETDSQASRERRLKKNLALSRESLVV
LSR1.Mm (SEQ ID NO:16)	GAGERRRVYREEEEEEEEGHYPPAPPYSETDSQASRERRMKNLALSRESLVV
	*. **** .***** *****.*****.*****

FIG. 2B

LSR1.Hs (SEQ ID NO:8)	MQQDGLGVGTRNGSGKGRSVHPSWPWCAPRPLRYFGRDARARRAQTAAALLAGGLSRGL
LSR2.Hs (SEQ ID NO:10)	MQQDGLGVGTRNGSGKGRSVHPSWPWCAPRPLRYFGRDARARRAQTAAALLAGGLSRGL
LSR3.Hs (SEQ ID NO:12)	MQQDGLGVGTRNGSGKGRSVHPSWPWCAPRPLRYFGRDARARRAQTAAALLAGGLSRGL

	FFA
LSR1.Hs (SEQ ID NO:8)	GSHPAAGRDVVFVWLLSTWCTAPARAIQVTVSNPYHVILFQPVTLPCITYQMTSTPT
LSR2.Hs (SEQ ID NO:10)	GSHPAAGRDVVFVWLLSTWCTAPARAIQVTVSNPYHVILFQPVTLPCITYQMTSTPT
LSR3.Hs (SEQ ID NO:12)	GSHPAAGRDVVFVWLLSTWCTAPARAIQVTVSNPYHVILFQPVTLPCITYQMTSTPT

LSR1.Hs (SEQ ID NO:8)	QPIVIWKYKSFCDRIADAFSPASVDNQLNAQLAAGNPGYNPYVECDVSVTRVTVATKQ
LSR2.Hs (SEQ ID NO:10)	QPIVIWKYKSFCDRIADAFSPASVDNQLNAQLAAGNPGYNPYVECDVSVTRVTVATKQ
LSR3.Hs (SEQ ID NO:12)	QPIVIWKYKSFCDRIADAFSPASVDNQLNAQLAAGNPGYNPYVECDVSVTRVTVATKQ

LSR1.Hs (SEQ ID NO:8)	GNAVTLGDDYQGRITITGNADLTFDQTAWGDSGVVYCSVVSAQDLQGNNEAYAEIVLG
LSR2.Hs (SEQ ID NO:10)	GNAVTLGDDYQGRITITGNADLTFDQTAWGDSGVVYCSVVSAQDLQGNNEAYAEIVL-
LSR3.Hs (SEQ ID NO:12)	GNAVTLGDDYQGRITITGNADLTFDQTAWGDSGVVYCSVVSAQDLQGNNEAYAEIVL-

LSR1.Hs (SEQ ID NO:8)	RTSGVABEIPGFQAGPIEDWLFVVVVCLAAFLIFLLLGICWCQCCPHTCCCYVRCPCCPD
LSR2.Hs (SEQ ID NO:10)	-----DWLFVVVVCLAAFLIFLLLGICWCQCCPHTCCCYVRCPCCPD
LSR3.Hs (SEQ ID NO:12)	-----
	<div style="text-align: center;"> </div>
LSR1.Hs (SEQ ID NO:8)	KCCCPEALYAAGKAATSGVPSIYAPSTYAHLSPAKTPPPPAMIPMGPAYNGYPGGYPGDV
LSR2.Hs (SEQ ID NO:10)	KCCCPEALYAAGKAATSGVPSIYAPSTYAHLSPAKTPPPPAMIPMGPAYNGYPGGYPGDV
LSR3.Hs (SEQ ID NO:12)	-----VYAAGKAATSGVPSIYAPSTYAHLSPAKTPPPPAMIPMGPAYNGYPGGYPGDV

LSR1.Hs (SEQ ID NO:8)	DRSSSAGGQGSYVPLLRTDSSVASEVRSGYRIQASQQDDSMRVLYYMEKELANFDPSRP
LSR2.Hs (SEQ ID NO:10)	DRSSSAGGQGSYVPLLRTDSSVASEVRSGYRIQASQQDDSMRVLYYMEKELANFDPSRP
LSR3.Hs (SEQ ID NO:12)	DRSSSAGGQGSYVPLLRTDSSVASEVRSGYRIQASQQDDSMRVLYYMEKELANFDPSRP

LSR1.Hs (SEQ ID NO:8)	GPPSGRVERAMSEVTSIHEDDWSRPSRGPALTPIRDEEWGGHSPRSRPGWDQEPAREQA
LSR2.Hs (SEQ ID NO:10)	GPPSGRVERAMSEVTSIHEDDWSRPSRGPALTPIRDEEWGGHSPRSRPGWDQEPAREQA
LSR3.Hs (SEQ ID NO:12)	GPPSGRVERAMSEVTSIHEDDWSRPSRGPALTPIRDEEWGGHSPRSRPGWDQEPAREQA

LSR1.Hs (SEQ ID NO:8)	GGGWRARRPRARSVDALDDLTPPSTAESGSRSPSTNGGSRRAYMPERSRDRDDLYDQDDS
LSR2.Hs (SEQ ID NO:10)	GGGWRARRPRARSVDALDDLTPPSTAESGSRSPSTNGGSRRAYMPERSRDRDDLYDQDDS
LSR3.Hs (SEQ ID NO:12)	GGGWRARRPRARSVDALDDLTPPSTAESGSRSPSTNGGSRRAYMPERSRDRDDLYDQDDS

FIG. 3A

LSR1.Hs (SEQ ID NO:8)	RDFPRSRDPHYDDFRSRERPPADPRSHHHRTDPRDNGSRSGDLPYDGRLLLEEAVRKKGS
LSR2.Hs (SEQ ID NO:10)	RDFPRSRDPHYDDFRSRERPPADPRSHHHRTDPRDNGSRSGDLPYDGRLLLEEAVRKKGS
LSR3.Hs (SEQ ID NO:12)	RDFPRSRDPHYDDFRSRERPPADPRSHHHRTDPRDNGSRSGDLPYDGRLLLEEAVRKKGS

	+ - + -
LSR1.Hs (SEQ ID NO:8)	EERRRPHKEEEEAYYPAPPYSETDSQASRERRLKKNLALSRESLVV
LSR2.Hs (SEQ ID NO:10)	EERRRPHKEEEEAYYPAPPYSETDSQASRERRLKKNLALSRESLVV
LSR3.Hs (SEQ ID NO:12)	EERRRPHKEEEEAYYPAPPYSETDSQASRERRLKKNLALSRESLVV

FIG. 3B

	FFA
LSR1.Rn (SEQ ID NO:2)	MAPAAGACAGAPDSHPATVVFVCLFLIIFCPDPASAIQVTVSDPYHVVLVFQPVTLPCTY
LSR2.Rn (SEQ ID NO:4)	MAPAAGACAGAPDSHPATVVFVCLFLIIFCPDPASAIQVTVSDPYHVVLVFQPVTLPCTY
LSR3.Rn (SEQ ID NO:6)	MAPAAGACAGAPDSHPATVVFVCLFLIIFCPDPASAIQVTVSDPYHVVLVFQPVTLPCTY

LSR1.Rn (SEQ ID NO:2)	QMSNTLTVPIVIWKYKSFCRDRIADAFSPASVDNQLNAQLAAGNPGYNPYVEQCDSVRTV
LSR2.Rn (SEQ ID NO:4)	QMSNTLTVPIVIWKYKSFCRDRIADAFSPASVDNQLNAQLAAGNPGYNPYVEQCDSVRTV
LSR3.Rn (SEQ ID NO:6)	QMSNTLTVPIVIWKYKSFCRDRIADAFSPASVDNQLNAQLAAGNPGYNPYVEQCDSVRTV

LSR1.Rn (SEQ ID NO:2)	RVVATKQGNAVTLGDYYQGRRITITGNADLTFEQTAWGDSGVYYCSVVSAQDL DGNNEAY
LSR2.Rn (SEQ ID NO:4)	RVVATKQGNAVTLGDYYQGRRITITGNADLTFEQTAWGDSGVYYCSVVSAQDL DGNNEAY
LSR3.Rn (SEQ ID NO:6)	RVVATKQGNAVTLGDYYQGRRITITGNADLTFEQTAWGDSGVYYCSVVSAQDL DGNNEAY

LSR1.Rn (SEQ ID NO:2)	AEITVLGRTSEAPEPGFRAGPLEDWLFVVVCLASLLLFLLLGICWCQCCPHTCCCYV
LSR2.Rn (SEQ ID NO:4)	AEITVL-----DWLFVVVCLASLLLFLLLGICWCQCCPHTCCCYV
LSR3.Rn (SEQ ID NO:6)	AEITVL-----DWLFVVVCLASLLLFLLLGICWCQCCPHTCCCYV

LSR1.Rn (SEQ ID NO:2)	RCPCCPDKCCCP EALYAAGKAATSGVPSIYAPSIYTHLSPAKTPPPPPAMIPMGPPYGYP
LSR2.Rn (SEQ ID NO:4)	RCPCCPDKCCCP EALYAAGKAATSGVPSIYAPSIYTHLSPAKTPPPPPAMIPMGPPYGYP
LSR3.Rn (SEQ ID NO:6)	-----VYAAGKAATSGVPSIYAPSIYTHLSPAKTPPPPPAMIPMGPPYGYP

LSR1.Rn (SEQ ID NO:2)	GDFDRHSSVGGHSSQVPLLRDVDGVSSEVRSYRIQANQQDDSMRVLYYMEKELANFDP
LSR2.Rn (SEQ ID NO:4)	GDFDRHSSVGGHSSQVPLLRDVDGVSSEVRSYRIQANQQDDSMRVLYYMEKELANFDP
LSR3.Rn (SEQ ID NO:6)	GDFDRHSSVGGHSSQVPLLRDVDGVSSEVRSYRIQANQQDDSMRVLYYMEKELANFDP

LSR1.Rn (SEQ ID NO:2)	SRPGPPNGRVERAMSEVTS LHEDDWRSRPSRAPALTPIRDEEWNRHSPQSPTWEQEPLQ
LSR2.Rn (SEQ ID NO:4)	SRPGPPNGRVERAMSEVTS LHEDDWRSRPSRAPALTPIRDEEWNRHSPQSPTWEQEPLQ
LSR3.Rn (SEQ ID NO:6)	SRPGPPNGRVERAMSEVTS LHEDDWRSRPSRAPALTPIRDEEWNRHSPQSPTWEQEPLQ

LSR1.Rn (SEQ ID NO:2)	EQPRGGWGSGRPRARSVDALDDINRPGSTESGRSSPPSSGRRGRAYAPPRSRSRDDL YDP
LSR2.Rn (SEQ ID NO:4)	EQPRGGWGSGRPRARSVDALDDINRPGSTESGRSSPPSSGRRGRAYAPPRSRSRDDL YDP
LSR3.Rn (SEQ ID NO:6)	EQPRGGWGSGRPRARSVDALDDINRPGSTESGRSSPPSSGRRGRAYAPPRSRSRDDL YDP

LSR1.Rn (SEQ ID NO:2)	DDPRDLPHSRDPHYDDIRSRDPRADPRSRQSRDPRDAGFRSRDPQYDGRLL E EALKKK
LSR2.Rn (SEQ ID NO:4)	DDPRDLPHSRDPHYDDIRSRDPRADPRSRQSRDPRDAGFRSRDPQYDGRLL E EALKKK
LSR3.Rn (SEQ ID NO:6)	DDPRDLPHSRDPHYDDIRSRDPRADPRSRQSRDPRDAGFRSRDPQYDGRLL E EALKKK

FIG. 4A

+--+

<u>LSR1 . Rn (SEQ ID NO:2)</u>	GSGERRRVYREEEEEEE	GQYPPAPPYSETDSQASRERRLKKNLALSRESLVV
<u>LSR2 . Rn (SEQ ID NO:4)</u>	GSGERRRVYREEEEEEE	GQYPPAPPYSETDSQASRERRLKKNLALSRESLVV
<u>LSR3 . Rn (SEQ ID NO:6)</u>	GSGERRRVYREEEEEEE	GQYPPAPPYSETDSQASRERRLKKNLALSRESLVV

FIG. 4B

FFA

LSR1.Mm (SEQ ID NO:16)	MAPAASACAGAPGSHPTTIFV	CLFLIIYCPDRASAIQVTVPDPYHVILFQPVTLHCTY
LSR2.Mm (SEQ ID NO:17)	MAPAASACAGAPGSHPTTIFV	CLFLIIYCPDRASAIQVTVPDPYHVILFQPVTLHCTY
LSR1.Mm (SEQ ID NO:18)	MAPAASACAGAPGSHPTTIFV	CLFLIIYCPDRASAIQVTVPDPYHVILFQPVTLHCTY

LSR1.Mm (SEQ ID NO:16)	QMSNTLTAPIVIWKYKSFCDRVDADFSPASVDNQLNAQLAAGNPGMNPYVECQDSVRTV	
LSR2.Mm (SEQ ID NO:17)	QMSNTLTAPIVIWKYKSFCDRVDADFSPASVDNQLNAQLAAGNPGMNPYVECQDSVRTV	
LSR3.Mm (SEQ ID NO:18)	QMSNTLTAPIVIWKYKSFCDRVDADFSPASVDNQLNAQLAAGNPGMNPYVECQDSVRTV	

LSR1.Mm (SEQ ID NO:16)	RVVATKQGNVAVTLGDYYQGRRITITGNAGLTFEQTAWGDSGVYYCSVVSQAQDLGDNNEAY	
LSR2.Mm (SEQ ID NO:17)	RVVATKQGNVAVTLGDYYQGRRITITGNAGLTFEQTAWGDSGVYYCSVVSQAQDLGDNNEAY	
LSR2.Mm (SEQ ID NO:18)	RVVATKQGNVAVTLGDYYQGRRITITGNAGLTFEQTAWGDSGVYYCSVVSQAQDLGDNNEAY	

LSR1.Mm (SEQ ID NO:16)	AEELVGLGRTSEAPHLPGFRAGPLEDWLFVVVVCLASLLFFLLLGICWCQCCPHTCCCYV	
LSR2.Mm (SEQ ID NO:17)	AEELVGL-----DWLFVVVVCLASLLFFLLLGICWCQCCPHTCCCYV	
LSR3.Mm (SEQ ID NO:18)	AEELVGL-----DWLFVVVVCLASLLFFLLLGICWCQCCPHTCCCYV	

LSR1.Mm (SEQ ID NO:16)	RCPCCPDKCCCPEALYAAGKAATSGVPSIYAPSIYTHLSPAKTPPPPPAMIPMRPPYGY	
LSR2.Mm (SEQ ID NO:17)	RCPCCPDKCCCPEALYAAGKAATSGVPSIYAPSIYTHLSPAKTPPPPPAMIPMRPPYGY	
LSR3.Mm (SEQ ID NO:18)	-----VYAAGKAATSGVPSIYAPSIYTHLSPAKTPPPPPAMIPMRPPYGY	

LSR1.Mm (SEQ ID NO:16)	GDFDRTSSVGGHSSQVPLLREVDGVSSEVRSYRIQANQDDSMRVLYYMEKELANFDP	
LSR2.Mm (SEQ ID NO:17)	GDFDRTSSVGGHSSQVPLLREVDGVSSEVRSYRIQANQDDSMRVLYYMEKELANFDP	
LSR3.Mm (SEQ ID NO:18)	GDFDRTSSVGGHSSQVPLLREVDGVSSEVRSYRIQANQDDSMRVLYYMEKELANFDP	

LSR1.Mm (SEQ ID NO:16)	SRPGPPNGRVERAMSEVTS LHEDDWRSRPSRAPALTPIRDEEWNRHSPRSPRTWEQEPLQ	
LSR2.Mm (SEQ ID NO:17)	SRPGPPNGRVERAMSEVTS LHEDDWRSRPSRAPALTPIRDEEWNRHSPRSPRTWEQEPLQ	
LSR3.Mm (SEQ ID NO:18)	SRPGPPNGRVERAMSEVTS LHEDDWRSRPSRAPALTPIRDEEWNRHSPRSPRTWEQEPLQ	

LSR1.Mm (SEQ ID NO:16)	EQPRGGWGSGRPRARSVDALDDINRPGSTESGRSSPPSSGRRGRAYAPPSRSDDLYPD	
LSR2.Mm (SEQ ID NO:17)	EQPRGGWGSGRPRARSVDALDDINRPGSTESGRSSPPSSGRRGRAYAPPSRSDDLYPD	
LSR3.Mm (SEQ ID NO:18)	EQPRGGWGSGRPRARSVDALDDINRPGSTESGRSSPPSSGRRGRAYAPPSRSDDLYPD	

LSR1.Mm (SEQ ID NO:16)	DDPRDLPHSRDPHYDDLRSRDPRADPRSRQSRSHDPRDAGFRSRDPQYDGRLLLEEALKKK	
LSR2.Mm (SEQ ID NO:17)	DDPRDLPHSRDPHYDDLRSRDPRADPRSRQSRSHDPRDAGFRSRDPQYDGRLLLEEALKKK	
LSR3.Mm (SEQ ID NO:18)	DDPRDLPHSRDPHYDDLRSRDPRADPRSRQSRSHDPRDAGFRSRDPQYDGRLLLEEALKKK	

FIG. 5A

		+-+
LSR1.Mm (SEQ ID NO:16)	GACERRRVYREEEEEEE	GHYPPAPPYSETDSQASRERRMKKNLALSRESLVV
LSR2.Mm (SEQ ID NO:17)	GACERRRVYREEEEEEE	GHYPPAPPYSETDSQASRERRMKKNLALSRESLVV
LSR3.Mm (SEQ ID NO:18)	GACERRRVYREEEEEEE	GHYPPAPPYSETDSQASRERRMKKNLALSRESLVV

FIG. 5B

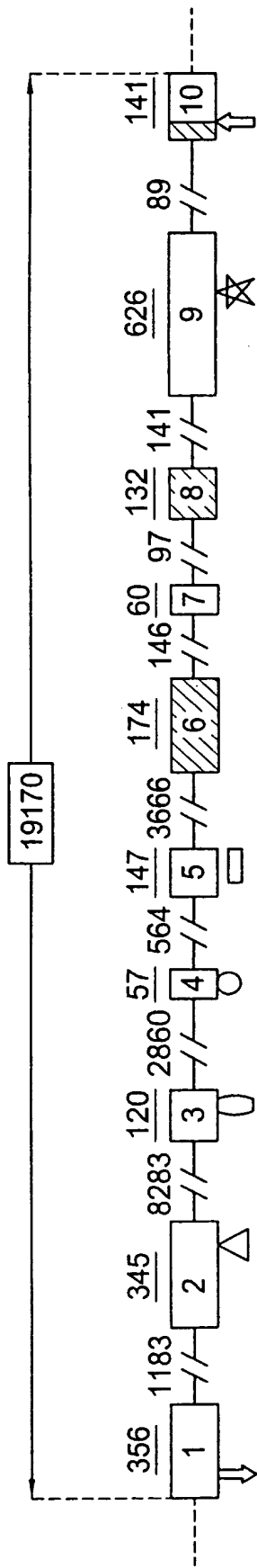


FIG. 6A

Patterns/ Signal	
△	: NPGY
○	: Di-leucine/ LI
○	: Di-leucine/ LL
□	: TNF-receptor
☆	: RSRS
↓	: ATG
↑	: STOP

LSR_Hs_2062 (649 aa)

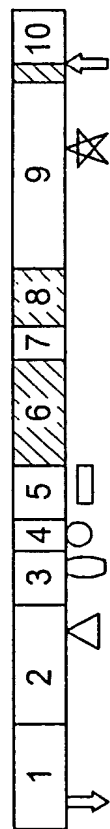


FIG. 6B

LSR_Hs_2005 (630 aa)

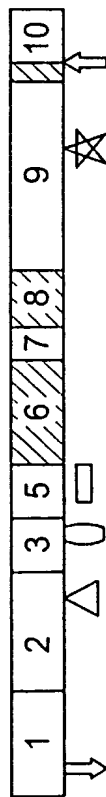


FIG. 6C

LSR_Hs_1858 (581 aa)



FIG. 6D

lsr1.Hs (SEQ ID NO:7)	TGGAGTGTGGCTCGGAGGACCGCGCGGGTCAAGCACCTTTCTCCCCCATATCTGAAAGC
lsr1.Rn (SEQ ID NO:1)	-----ACCGCTCACCAGGTCAGTTGTCCCCGAAAGCCGAAGGC
lsr1.Mm (SEQ ID NO:13)	-----
lsr1.Hs (SEQ ID NO:7)	ATGCCCTTTGTCCACGTCGTTTACGCTCATTAAACT--TCCAGAATGCAACAGGACGGA
lsr1.Rn (SEQ ID NO:1)	ATGAGCTTCGCCCCAAGTTCTTTTATGGGTTAGAACTCCTCCAGAGCGGGGGAAAAAGGA
lsr1.Mm (SEQ ID NO:13)	-----
lsr1.Hs (SEQ ID NO:7)	CTTGAGTAGGGACAAGGAACGGAAGTGGGAAGGGGAGGAGCGTGCACCCCTCCTGGCCT
lsr1.Rn (SEQ ID NO:1)	CTTGGAATAGGGGC-----GGGACGGAGCACGCACCCCTTCTCCGCCT
lsr1.Mm (SEQ ID NO:13)	-----
lsr1.Hs (SEQ ID NO:7)	TGGTGCGCGCCGCGCCCCCTA-----AGGTACTTTGGAAGGGACGCGCGGGC-CAGACG
lsr1.Rn (SEQ ID NO:1)	TGGTTCTCGCCGCGCCCCCTACTCTCGGATACTTGGGAGGGGACGCGCGGGCACCCTCG
lsr1.Mm (SEQ ID NO:13)	-----GCACCGTCG
	* * * * *
lsr1.Hs (SEQ ID NO:7)	CGCCCAGACGGCCGCGATGGCGCTGTGGCCGGCGGGCTCTCCAGAGGGCTGGGCTCCCA
lsr1.Rn (SEQ ID NO:1)	CTGCTAGACGGCCGCGATGGCGCCGGCGCCGGCGCGTGTGCTGGGGCGCCTGACTCCCA
lsr1.Mm (SEQ ID NO:13)	CTGCTAGACGGCCGCGATGGCGCCGGCGCCAGCGCGTGTGCTGGGGCGCCTGGCTCCCA
	* * * * *
lsr1.Hs (SEQ ID NO:7)	CCCGGCCGCGCAGGCCGGGACGCGTCTTCTGTGTGGCTTCTGCTTAGCACCTGGTG
lsr1.Rn (SEQ ID NO:1)	CCCAGCTACCGTGG-----TCTTCGTGTGTCTCTTTCTCATCATTTTCTG
lsr1.Mm (SEQ ID NO:13)	CCCGGCCACCACGA-----TCTTCGTGTGTCTTTTCTCATCATTTACTG
	*** * * * * * * * * * *
lsr1.Hs (SEQ ID NO:7)	CACAGCTCCTGCCAGGGCCATCCAGGTGACCGTGTCACACCCCTACCACGTGGTGATCCT
lsr1.Rn (SEQ ID NO:1)	CCCAGACCCTGCCAGTGCCATCCAGGTGACTGTGTCTGACCCCTACCACGTAGTGATCCT
lsr1.Mm (SEQ ID NO:13)	CCCAGACCGTGCCAGTGCCATCCAGGTGACCGTGCTGACCCCTACCACGTAGTGATCCT
	* * * * *
lsr1.Hs (SEQ ID NO:7)	CTTCCAGCCTGTGACCCCTGCCCTGTACCTACCAGATGACCTCGACCCCCACGCAACCCAT
lsr1.Rn (SEQ ID NO:1)	GTTCCAGCCAGTGACCCCTGCCCTGCACCTATCAGATGAGCAACACTCTCACAGTCCCCAT
lsr1.Mm (SEQ ID NO:13)	GTTCCAGCCAGTGACACTACCTGCACCTACCAGATGAGCAATACCCCTCACAGCCCCAT
	***** * * * * * * * * * *
lsr1.Hs (SEQ ID NO:7)	CGTCATCTGGAAGTACAAGTCTTTCTGCCGGGACCGCATCGCCGATGCCCTTCTCCCCGGC
lsr1.Rn (SEQ ID NO:1)	CGTGATCTGGAAGTACAAGTCATTCTGCCGGGACCGTATTGCCGATGCCCTTCTCTCCTGC
lsr1.Mm (SEQ ID NO:13)	CGTGATCTGGAAGTATAAGTCGTTCTGTCTGGGACCGTGTGCCGACGCCCTTCTCCCCCTGC
	*** * * * * * * * * * *

FIG. 7A

lsr1.Hs (SEQ ID NO:7)	CAGCGTCGACAACCAGCTCAATGCCAGCTGGCAGCCGGGAACCCAGGCTACAACCCCTA
lsr1.Rn (SEQ ID NO:1)	CAGTGTGGACAACCAGCTAAATGCCAGTTGGCAGCTGGCAACCCCGGCTACAACCCCTA
lsr1.Mm (SEQ ID NO:13)	CAGCGTGGACAACCAGCTCAACGCCAGCTGGCGGCTGGCAACCCCGGCTACAACCCCTA
	*** ** ***** ** ***** ** ***** *****
lsr1.Hs (SEQ ID NO:7)	CGTTGAGTGCCAGGACAGCGTGCGCACCGTCAGGGTCGTGGCCACCAAGCAGGGCAACGC
lsr1.Rn (SEQ ID NO:1)	TGTGGAGTGCCAGGACAGTGTACGCACTGTCAGGGTGGTGGCCACCAAACAGGGCAATGC
lsr1.Mm (SEQ ID NO:13)	TGTGGAGTGCCAGGACAGCGTACGCACTGTCAGGGTGGTGGCCACCAAACAGGGCAATGC
	** ***** ** ***** ***** *****
lsr1.Hs (SEQ ID NO:7)	TGTGACCCTGGGAGATTACTACCAGGGCCGGAGGATTACCATCACCGGAAATGCTGACCT
lsr1.Rn (SEQ ID NO:1)	GGTGACCCTGGGAGACTACTACCAAGGCAGGAGGATCACCATAACAGGAAATGCTGACCT
lsr1.Mm (SEQ ID NO:13)	TGTGACCCTGGGAGACTACTACCAGGGCAGGAGAATCACCATCACAGGAAATGCTGGCCT
	***** ***** ** ***** ** ***** ** *****
lsr1.Hs (SEQ ID NO:7)	GACCTTTGACCAGACGGCGTGGGGGACAGTGGTGTGTATTACTGCTCCGTGGTCTCAGC
lsr1.Rn (SEQ ID NO:1)	GACCTTCGAGCAGACAGCCTGGGGAGACAGTGGAGTGTATTACTGCTCTGTGGTCTCGGC
lsr1.Mm (SEQ ID NO:13)	GACCTTCGAGCAGACGGCCTGGGGAGACAGTGGAGTGTATTACTGCTCCGTGGTCTCAGC
	***** ** ***** ** ***** ***** ***** *****
lsr1.Hs (SEQ ID NO:7)	CCAGGACCTCCAGGGGAACAATGAGGCCTACGCAGAGCTCATCGTCCTTGGGAGGACCTC
lsr1.Rn (SEQ ID NO:1)	CCAAGATCTGGATGGAAACAACGAGGCGTACGCAGAGCTCATCGTCCTTGGCAGGACCTC
lsr1.Mm (SEQ ID NO:13)	CCAAGATCTGGATGGGAACAACGAGGCGTACGCAGAGCTCATTGTCTTGGCAGGACCTC
	*** ** * * * ***** ***** ***** *****
lsr1.Hs (SEQ ID NO:7)	AGGGGTGGCTGAGCTCTTACCTGGTTTTTCAGGCGGGGCCCATAGAAGACTGGCTCTTCGT
lsr1.Rn (SEQ ID NO:1)	AGAGGCCCCCTGAGCTCCTACCTGGTTTTTCGGGCGGGGCCCTTGAAGATTGGCTCTTTGT
lsr1.Mm (SEQ ID NO:13)	AGAAGCCCCCTGAGCTCCTACCTGGTTTTTCGGGCGGGGCCCTTGAAGATTGGCTCTTTGT
	** * ***** ***** ***** * ***** *****
lsr1.Hs (SEQ ID NO:7)	GGTTGTGGTATGCCTGGCTGCCTTCCTCATCTTCCTCCTCCTGGGCATCTGCTGGTGCCA
lsr1.Rn (SEQ ID NO:1)	GGTCGTGGTCTGCCTGGCGAGCCTCCTCCTCTTCCTCCTCCTGGGCATCTGCTGGTGCCA
lsr1.Mm (SEQ ID NO:13)	GGTCGTGGTCTGCCTGGCAAGCCTCCTCTTCTTCCTCCTCCTGGGCATCTGCTGGTGCCA
	*** ***** ***** * ***** ***** *****
lsr1.Hs (SEQ ID NO:7)	GTGCTGCCCCGACACTTGCTGCTGCTACGTCAGGTGCCCTGCTGCCCAGACAAGTGCTG
lsr1.Rn (SEQ ID NO:1)	GTGCTGTCCCTCACACCTGCTGCTGCTATGTCCGATGTCCCTGCTGCCCAGACAAGTGCTG
lsr1.Mm (SEQ ID NO:13)	GTGCTGTCCCCACACCTGCTGCTGCTATGTGAGATGTCCCTGCTGCCCAGACAAGTGCTG
	***** ** ***** ***** ** * ***** *****
lsr1.Hs (SEQ ID NO:7)	CTGCCCCGAGGCCCTGTATGCCGCCGGCAAAGCAGCCACCTCAGGTGTTCCAGCATTTA
lsr1.Rn (SEQ ID NO:1)	TTGCCCTGAGGCTCTTTATGCTGCTGGCAAAGCAGCCACCTCAGGTGTTCCGAGCATCTA
lsr1.Mm (SEQ ID NO:13)	TTGCCCTGAGGCCCTTTATGCTGCTGGCAAAGCAGCCACCTCAGGTGTGCCAAGCATCTA
	***** ***** ** ***** ** ***** *****

FIG. 7B

<u>lsr1.Hs (SEQ ID NO:7)</u>	TGCCCCCAGCACCTATGCCACCTGTCTCCCGCCAAGACCCACC---CCCACCAGCTAT
<u>lsr1.Rn (SEQ ID NO:1)</u>	TGCCCCCAGCATCTATACCCACCTCTCACCTGCCAAGACCCACCACCTCCGCCTGCCAT
<u>lsr1.Mm (SEQ ID NO:13)</u>	TGCCCCCAGCATCTATACCCACCTCTCTCCTGCCAAGACTCCGCCACCTCCGCCTGCCAT
	***** **
<u>lsr1.Hs (SEQ ID NO:7)</u>	GATTCCCATGGGCCCTGCCTACAACGGGTACCCTGGAGGATACCCTGGAGACGTTGACAG
<u>lsr1.Rn (SEQ ID NO:1)</u>	GATTCCCATGGGCCCTCCCTAT-----GGGTACCCTGGAGACTTTGACAG
<u>lsr1.Mm (SEQ ID NO:13)</u>	GATTCCCATGCGTCCTCCCTAT-----GGGTACCCTGGAGACTTTGACAG
	***** **
<u>lsr1.Hs (SEQ ID NO:7)</u>	GAGTAGCTCAGCTGGTGGCCAAGGCTCCTATGTACCCCTGCTTCGGGACACGGACAGCAG
<u>lsr1.Rn (SEQ ID NO:1)</u>	ACATAGCTCAGTTGGTGGCCACAGCTCCCAAGTACCCCTGCTGCGTGACGTGGATGGCAG
<u>lsr1.Mm (SEQ ID NO:13)</u>	GACCAGCTCAGTTGGTGGCCACAGCTCCCAGGTGCCCTGCTGCGTGAAGTGGATGGGAG
	***** **
<u>lsr1.Hs (SEQ ID NO:7)</u>	TGTGGCCTCTGAAGTCCGCAGTGGCTACAGGATTCAAGGCCAGCCAGCAGGACGACTCCAT
<u>lsr1.Rn (SEQ ID NO:1)</u>	TGTATCTTCAGAAGTACGAAGTGGCTACAGGATCCAGGCTAACCAGCAAGATGACTCCAT
<u>lsr1.Mm (SEQ ID NO:13)</u>	CGTATCTTCAGAAGTACGAAGTGGCTACAGGATCCAGGCTAACCAGCAAGATGACTCCAT
	** * * * *
<u>lsr1.Hs (SEQ ID NO:7)</u>	GCGGGTCCTGTACTACATGGAGAAGGAGCTGGCCAACCTTCGACCCTTCTCGACCTGGCCC
<u>lsr1.Rn (SEQ ID NO:1)</u>	GAGGGTCCTATACTATATGGAGAAAGAGCTAGCCAACCTTTGACCCTTCCCGACCTGGCCC
<u>lsr1.Mm (SEQ ID NO:13)</u>	GAGGGTCCTATACTATATGGAGAAGGAGCTAGCCAACCTTCGATCCTTCCCGGCCTGGCCC
	* * * * *
<u>lsr1.Hs (SEQ ID NO:7)</u>	CCCCAGTGGCCGTGTGGAGCGGGCCATGAGTGAAGTCACCTCCCTCCACGAGGACGACTG
<u>lsr1.Rn (SEQ ID NO:1)</u>	TCCCAATGGCAGACTGGAACGGGCCATGAGTGAAGTAACCTCCCTCCATGAAGATGACTG
<u>lsr1.Mm (SEQ ID NO:13)</u>	TCCCAATGGCCGAGTGGAAACGGGCCATGAGTGAAGTAACCTCCCTCCATGAAGATGACTG
	**** * * * * *
<u>lsr1.Hs (SEQ ID NO:7)</u>	GCGATCTCGGCCTTCCCGGGGCCCTGCCCTACCCCGATCCGGGATGAGGAGTGGGGTGG
<u>lsr1.Rn (SEQ ID NO:1)</u>	GCGATCGAGGCCTTCCAGGGCTCCTGCCCTACCCCCATCAGGGATGAGGAGTGGGAATCG
<u>lsr1.Mm (SEQ ID NO:13)</u>	GCGATCTCGGCCTTCCAGGGCTCCTGCCCTCACACCCATCAGGGATGAGGAGTGGGAATCG
	***** **
<u>lsr1.Hs (SEQ ID NO:7)</u>	CCACTCCCCCGGAGTCCAGGGGATGGGACCAGGAGCCCGCCAGGGAGCAGGCAGGCGG
<u>lsr1.Rn (SEQ ID NO:1)</u>	CCACTCCCCACAGAGTCCAGAACATGGGAGCAGGAACCCCTTCAAGAACAACCAAGGGG
<u>lsr1.Mm (SEQ ID NO:13)</u>	CCACTCCCCTCGGAGTCCAGAACATGGGAGCAGGAACCCCTTCAAGAACAGCCAAGGGG
	***** * * * * *
<u>lsr1.Hs (SEQ ID NO:7)</u>	GGGCTGGCGGGCCAGGCGGCCCGGGCCCGCTCCGTGGACGCCCTGGACGACCTCACCCC
<u>lsr1.Rn (SEQ ID NO:1)</u>	TGGTTGGGGGTCTGGACGCCCTCGGGCCCGCTCTGTGGATGCTCTAGATGATATCAACCG
<u>lsr1.Mm (SEQ ID NO:13)</u>	TGGTTGGGGGTCTGGGCGGCCTCGGGCCCGCTCTGTGGATGCTCTAGATGACATCAACCG
	** * * * *

FIG. 7C

lsr1.Hs (SEQ ID NO:7)	GCCGAGCACCGCCGAGTCAGGGAGCAGGTCTCCACGAGTAATGGTGGGAGAAGCCGGGC
lsr1.Rn (SEQ ID NO:1)	GCCTGGCTCCACTGAATCAGGACGGTCTTCTCCCCAAGTAGTGGACGGAGAGGACGGGC
lsr1.Mm (SEQ ID NO:13)	GCCTGGCTCCACTGAATCAGGAAGGTCTTCTCCCCAAGTAGTGGACGGAGAGGGCGGGC
	*** ** * * * * * * * * * * * * * * * * * * * * * * * * *
lsr1.Hs (SEQ ID NO:7)	CTACATGCCCCCGCGAGCCGCGAGCCGGGACGACCTCTATGACCAAGACGACTCGAGGGA
lsr1.Rn (SEQ ID NO:1)	CTATGCACCTCCAAGAAGTCGCAGCCGGGATGACCTCTATGACCCGGACGATCCTAGGGA
lsr1.Mm (SEQ ID NO:13)	CTATGCACCTCCGAGAAGTCGCAGCCGGGATGACCTCTATGACCCGACGATCCTAGAGA
	*** ** * * * * * * * * * * * * * * * * * * * * * * * *
lsr1.Hs (SEQ ID NO:7)	CTTCCACGCTCCCGGGACCCCCACTAC---GACGACTTCAGGTCTCGGGAGCGCCCTCC
lsr1.Rn (SEQ ID NO:1)	CTTGCCACATTCCCGAGATCCCCACTATTATGACGACATCAGGTCTAGAGA---TCCACG
lsr1.Mm (SEQ ID NO:13)	CTTGCCACATTCCCGAGATCCCCACTATTATGATGATTTGAGGTCTAGGGA---TCCACG
	*** ***** * * * * * * * * * * * * * * * * * * * * * * *
lsr1.Hs (SEQ ID NO:7)	TGCCGACCCCGAGGTCCCACCACCACCGTACCCGGGACCCTCGGGACAACGGCTCCAGGTC
lsr1.Rn (SEQ ID NO:1)	TGCTGACCCCGAGATCCCGTCAGC---GATCCCGAGATCCTCGGGATGCTGGCTTCAGGTC
lsr1.Mm (SEQ ID NO:13)	TGCTGACCCCGAGATCCCGTCAGC---GATCCCGAGATCCTCGGGATGCTGGCTTCAGGTC
	*** ***** * * * * * * * * * * * * * * * * * * * * * * *
lsr1.Hs (SEQ ID NO:7)	CGGGGACCTCCCCTATGATGGGCGGCTACTGGAGGAGGCTGTGAGGAAGAAGGGGTCGGA
lsr1.Rn (SEQ ID NO:1)	AAGGGACCCTCAGTATGATGGGCGACTATTAGAAGAGGCTTTAAAGAAAAAGGGGTCGGG
lsr1.Mm (SEQ ID NO:13)	ACGGGACCCTCAGTATGATGGGCGACTCTTAGAAGAGGCTTTAAAGAAAAAGGGGCTGG
	***** * * * * * * * * * * * * * * * * * * * * * * *
lsr1.Hs (SEQ ID NO:7)	GGAGAGGAGGAGACCCCAAGGAGGA-----GGAGGAAGAGGCCCTACTACCCGCC
lsr1.Rn (SEQ ID NO:1)	CGAGAGAAGGAGGGTTTACAGGGAGGAAGAAGA---GGAAGAGGAGGGCCAATACCCCCC
lsr1.Mm (SEQ ID NO:13)	GGAGAGAAGACGCGTTTACAGGGAGGAAGAAGAAGAAGAAGAGGAGGGCCACTATCCCCC
	***** * * * * * * * * * * * * * * * * * * * * * * *
lsr1.Hs (SEQ ID NO:7)	CGCGCCGCCCCCGTACTCGGAGACCGACTCGCAGGCGTCCCGAGAGCGCAGGCTCAAGAA
lsr1.Rn (SEQ ID NO:1)	AGCACCTCCACCTTACTCAGAGACTGACTCGCAGGCCTCACGGGAGAGGAGGCTGAAAAA
lsr1.Mm (SEQ ID NO:13)	AGCACCTCCGCCTTACTCTGAGACTGACTCGCAGGCCTCGAGGGAGCGGAGGATGAAAAA
	** * * * * * * * * * * * * * * * * * * * * * * * * *
lsr1.Hs (SEQ ID NO:7)	GAACTTGGCCCTGAGTCGGGAAAGTTTAGTCGTCTGATCTGACGTT'-----
lsr1.Rn (SEQ ID NO:1)	GAATTTGGCCCTGAGTCGGGAAAGTTTAGTCGTCTGATCC-ACGTTTTGT-ATGTAGCTT
lsr1.Mm (SEQ ID NO:13)	GAATTTGGCCCTGAGTCGGGAAAGTTTAGTCGTCTGATCCCACGTTTTGTATGTAGCTT
	*** * * * * * * * * * * * * * * * * * * * * * * *
lsr1.Hs (SEQ ID NO:7)	-----
lsr1.Rn (SEQ ID NO:1)	TTGTACTTTTTTTTAATTGGAATCAATATTGATGAAACTTCAAGCCTAATAAAATGTCT
lsr1.Mm (SEQ ID NO:13)	TTATACTTTTTTAATTGGAATATTGATGA--AACTCTTCACCAAGCCTAATAAAA-----

FIG. 7D

lsr1.Hs (SEQ ID NO:7) -----
lsr1.Rn (SEQ ID NO:1) AATCACAAAAAAAAAAAA
lsr1.Mm (SEQ ID NO:13) -----

FIG. 7E

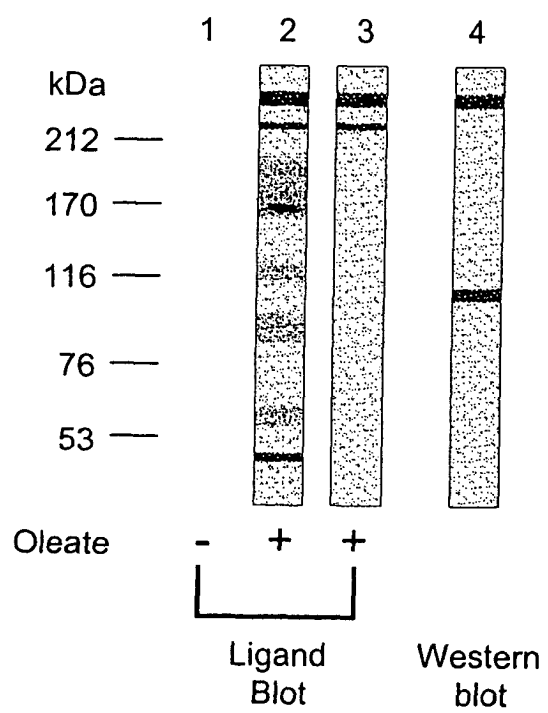


FIG. 8

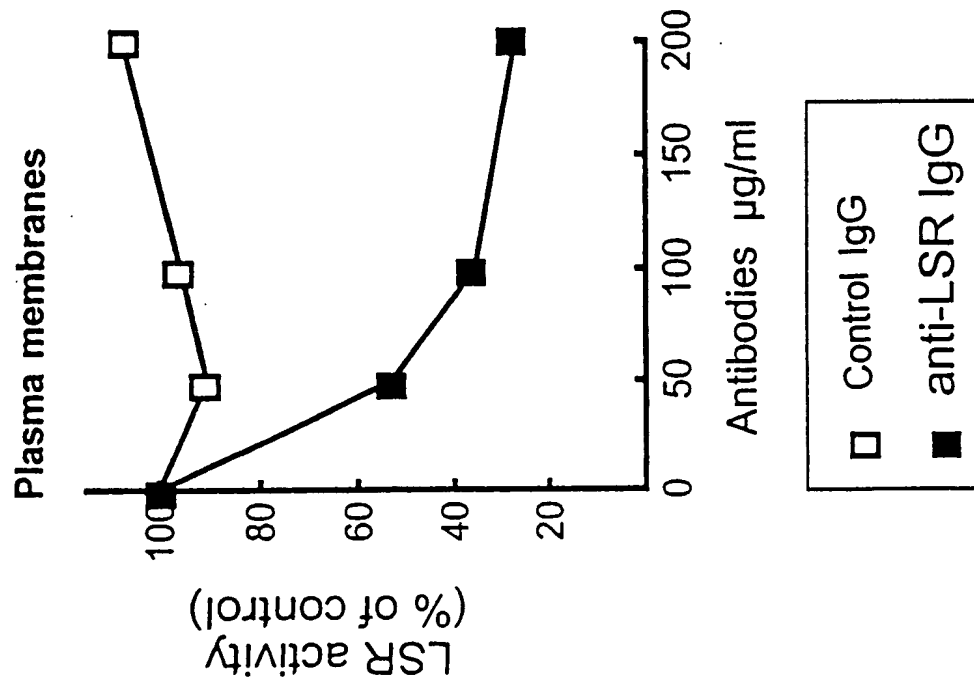


FIG. 9A

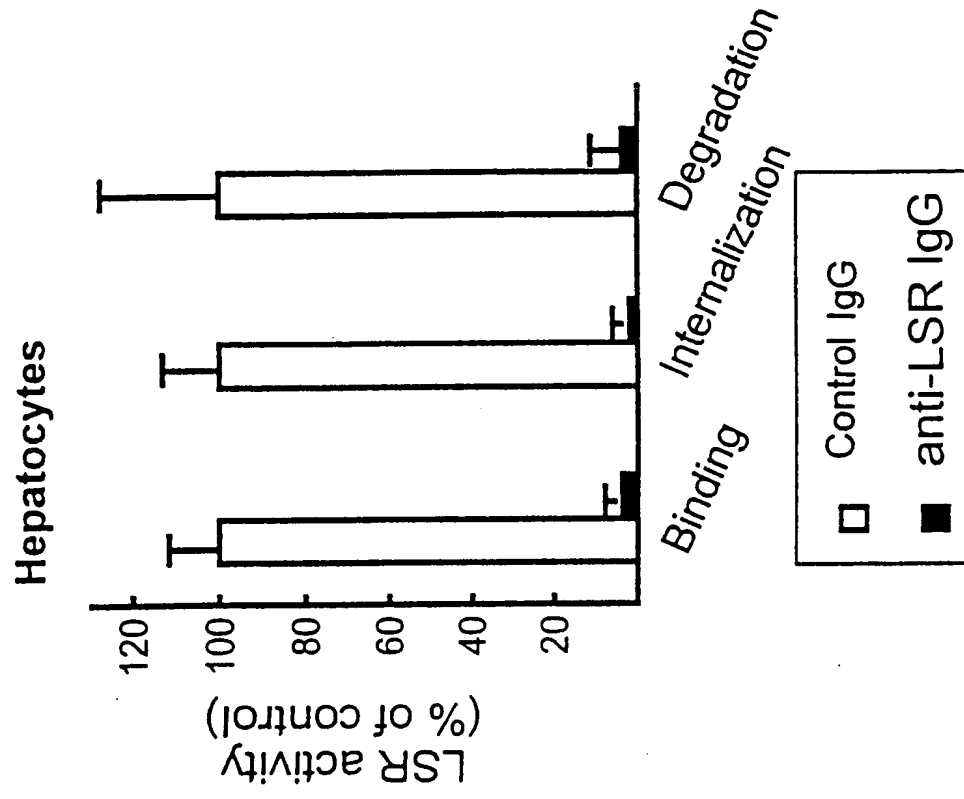


FIG. 9B

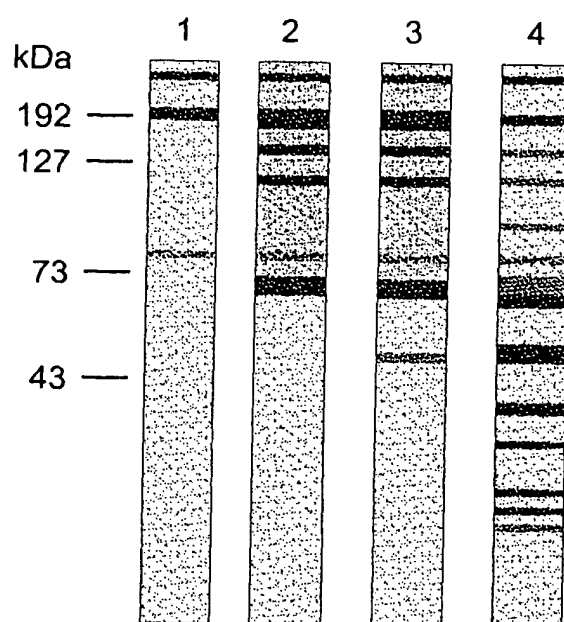


FIG. 10

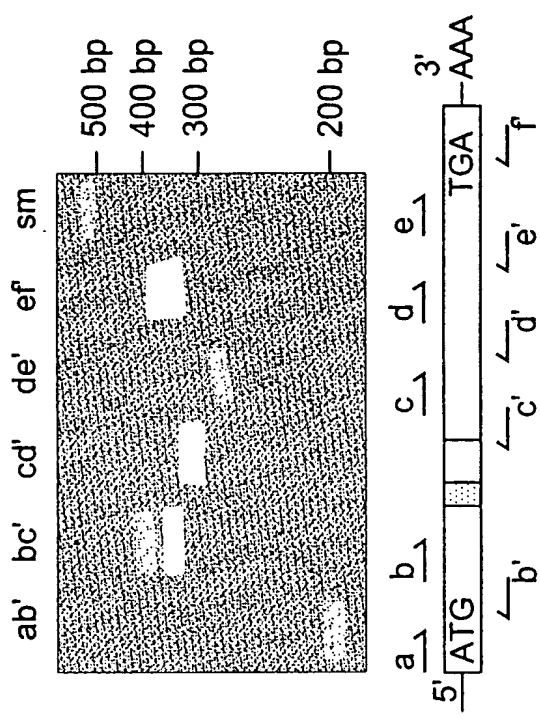


FIG. 11C

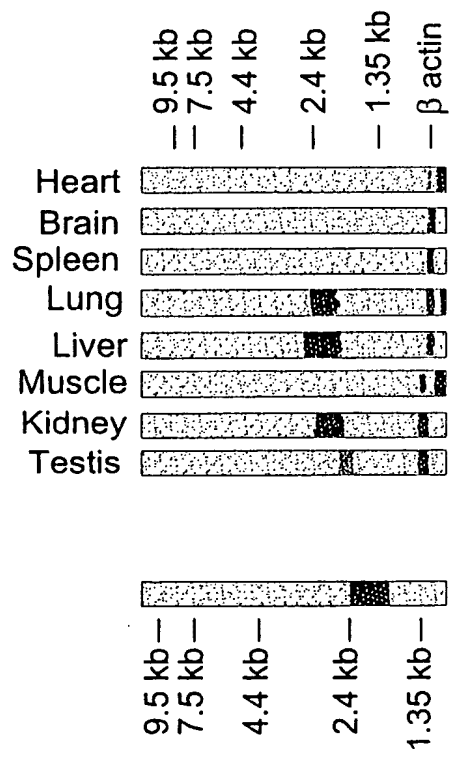


FIG. 11B

FIG. 11A

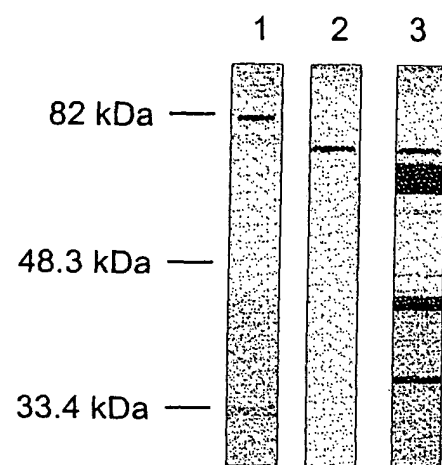


FIG. 12

N -Terminal Peptide

di - leucine addressing signal

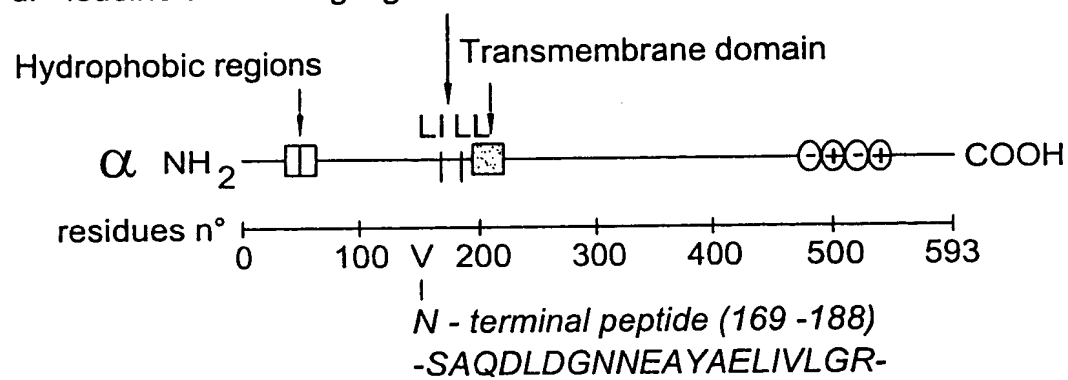


FIG. 13A

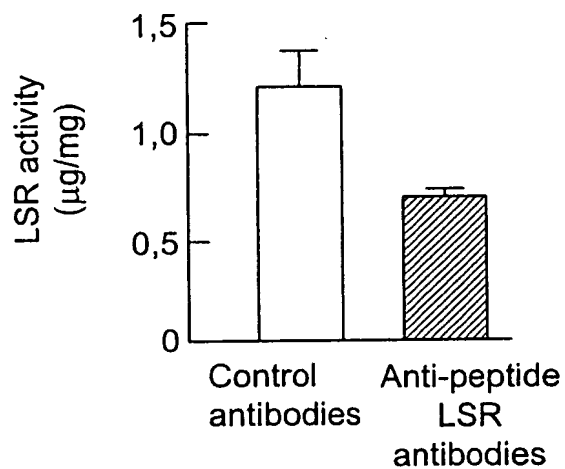


FIG. 13B

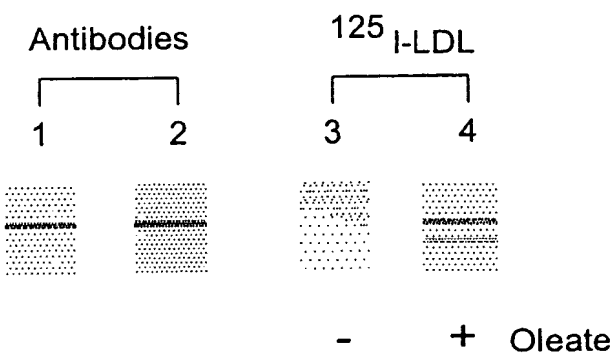


FIG. 13C

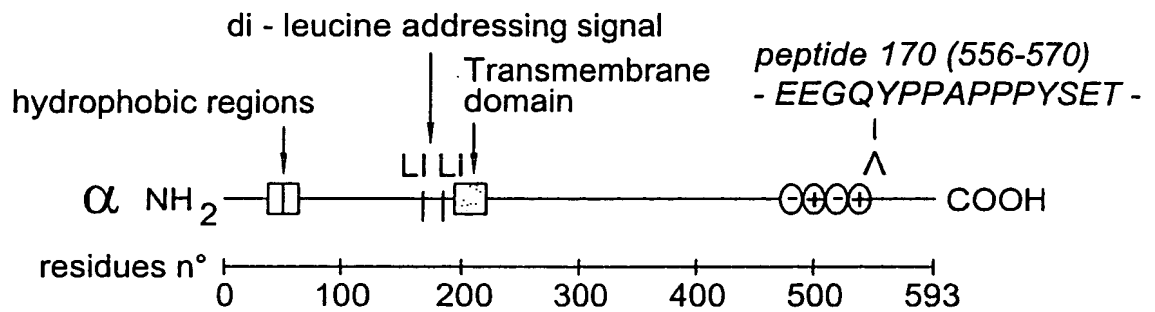


FIG. 14A Peptide 170

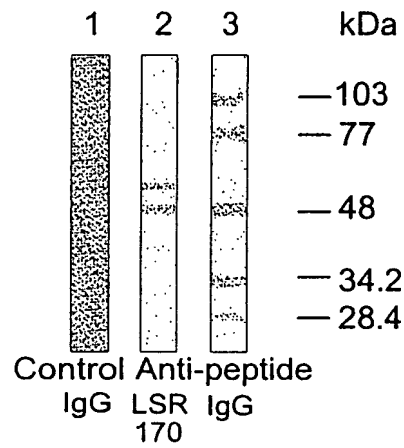


FIG. 14B Western

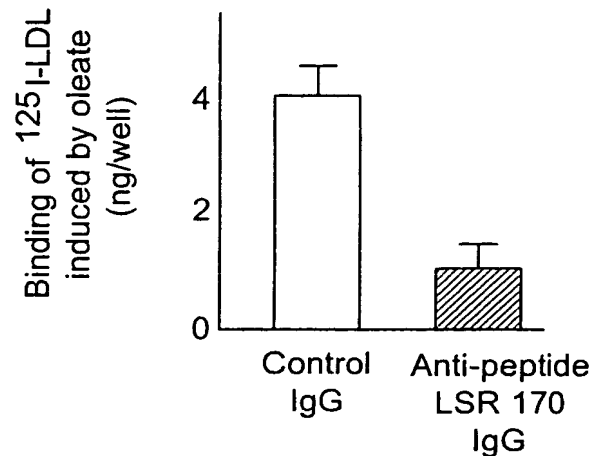


FIG. 14C Immunoinhibition

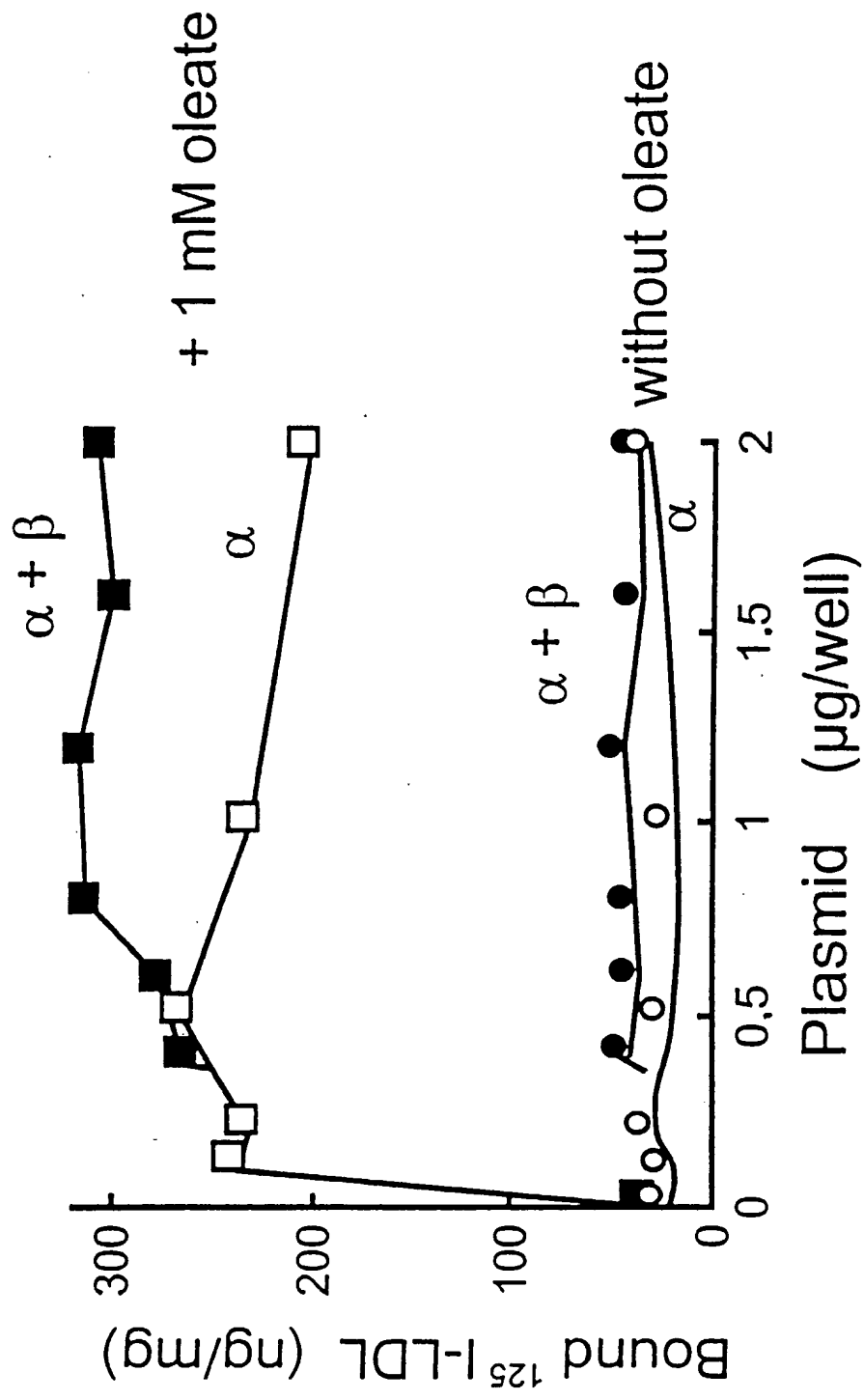


FIG. 15

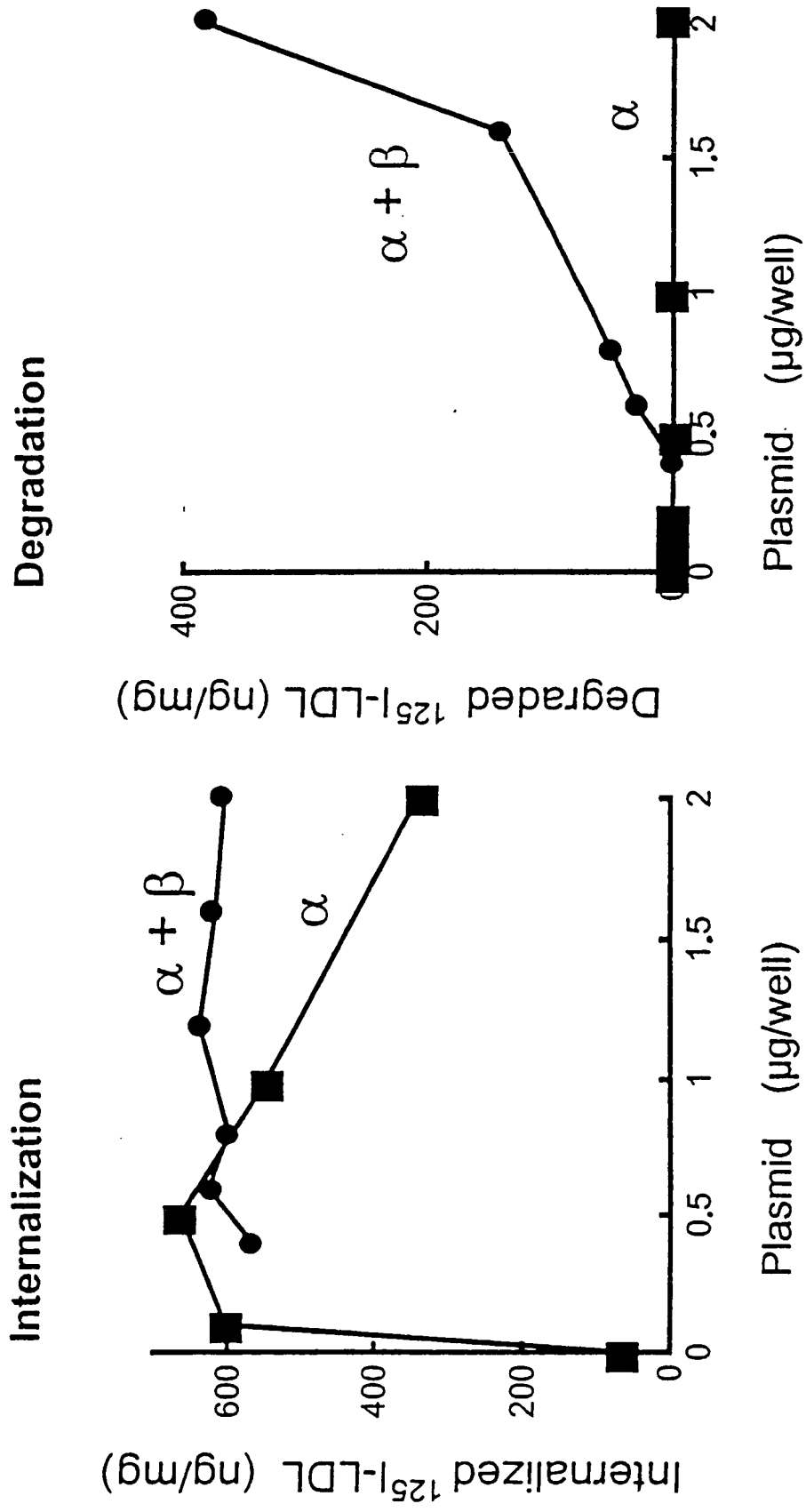


FIG. 16A

FIG. 16B

Immunoinhibition

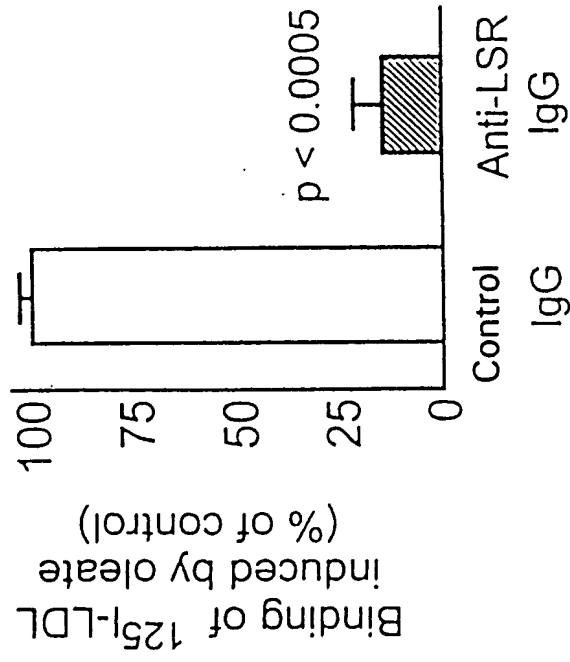


FIG. 17A

Ligand specificity

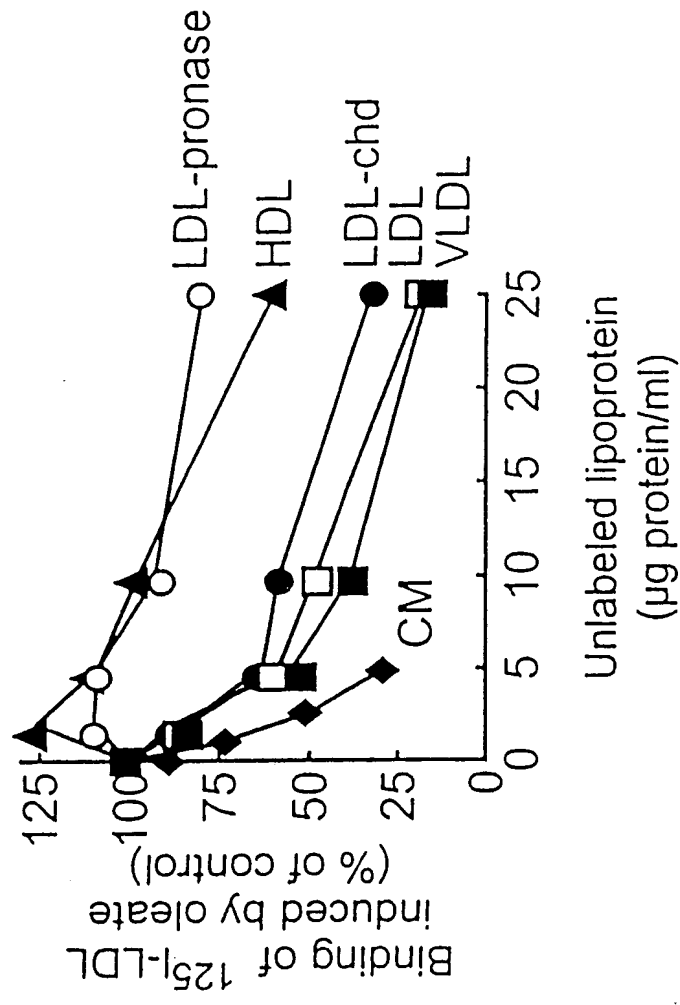
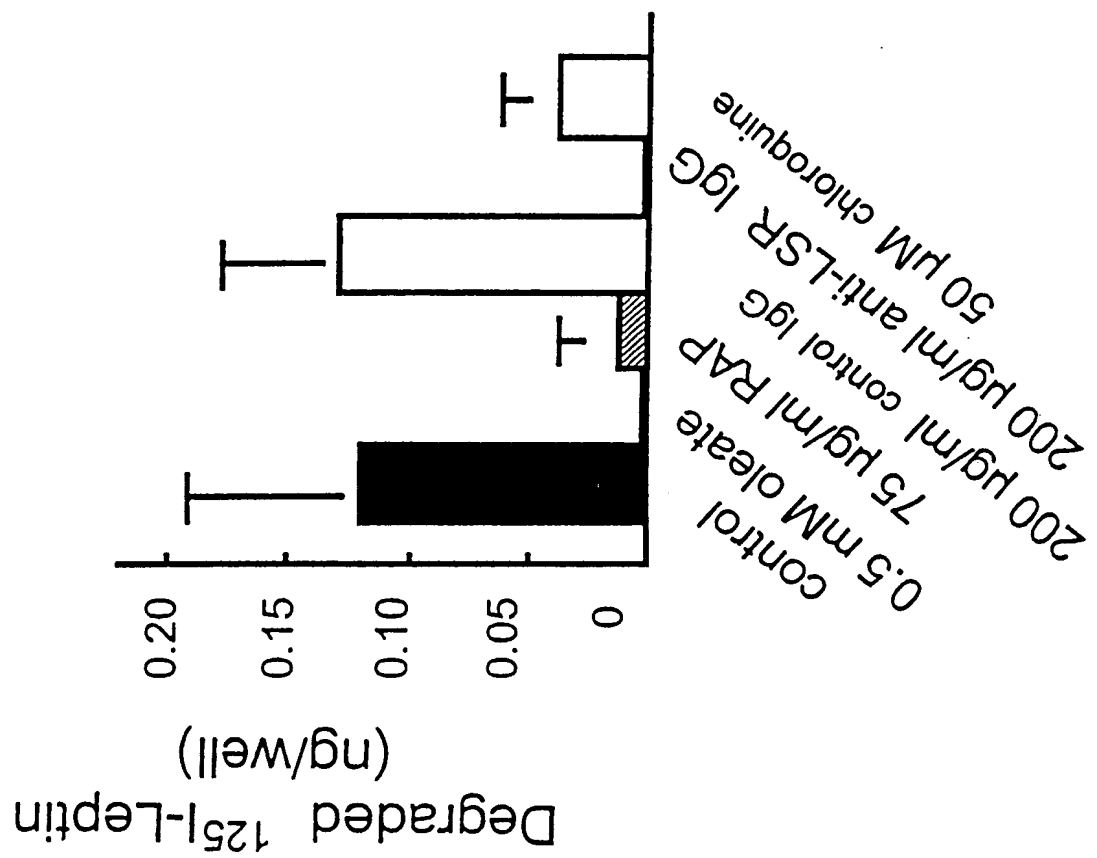


FIG. 17B

FIG. 18



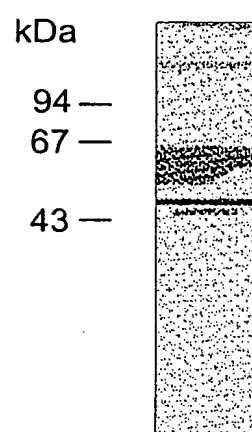


FIG. 19

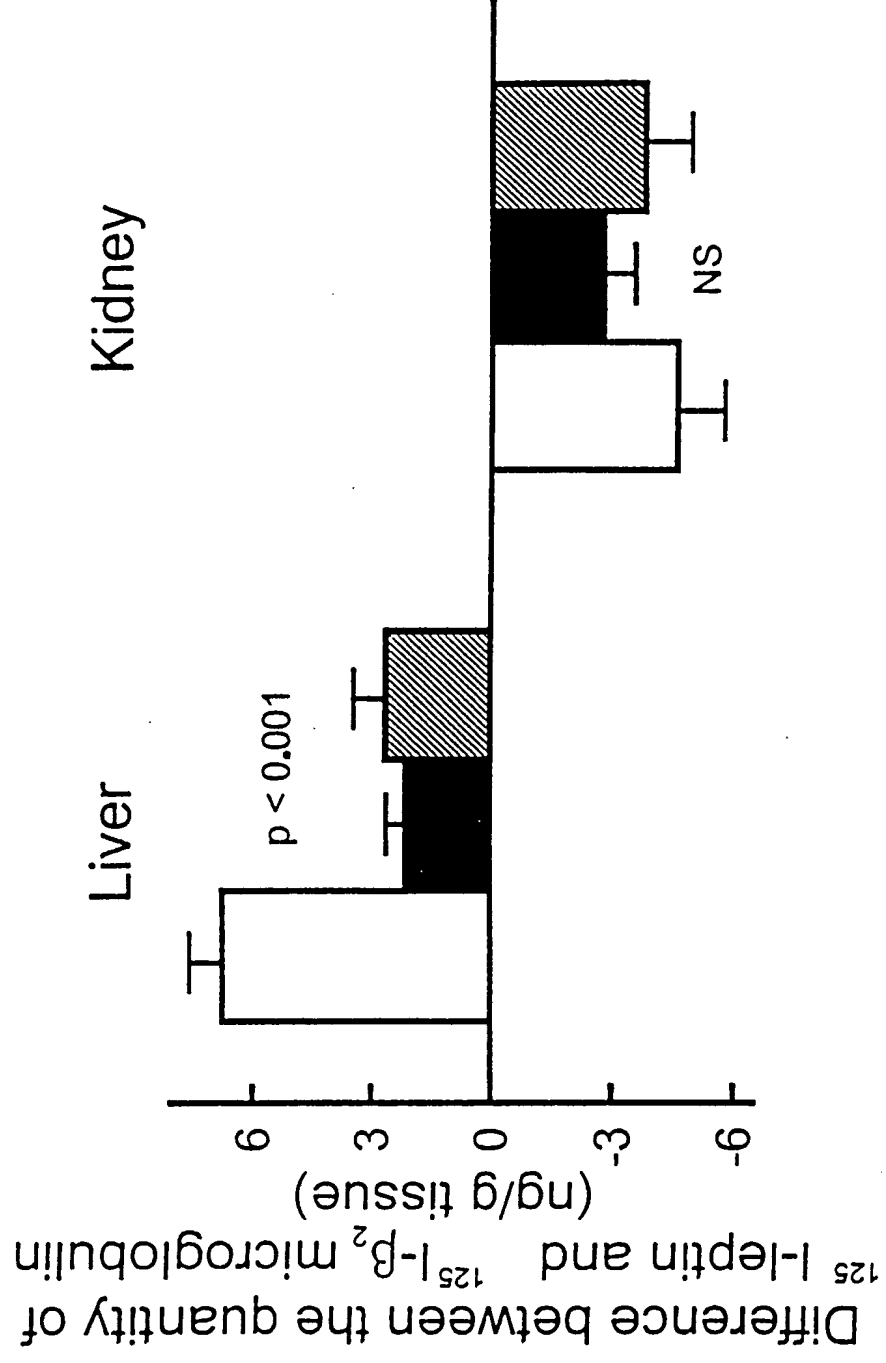


FIG. 20

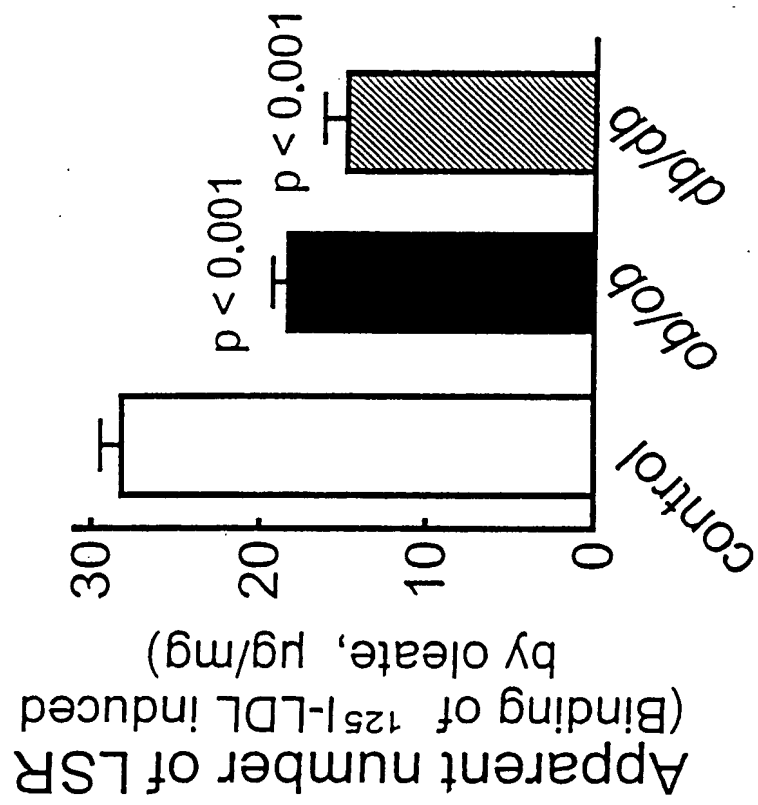


FIG. 21

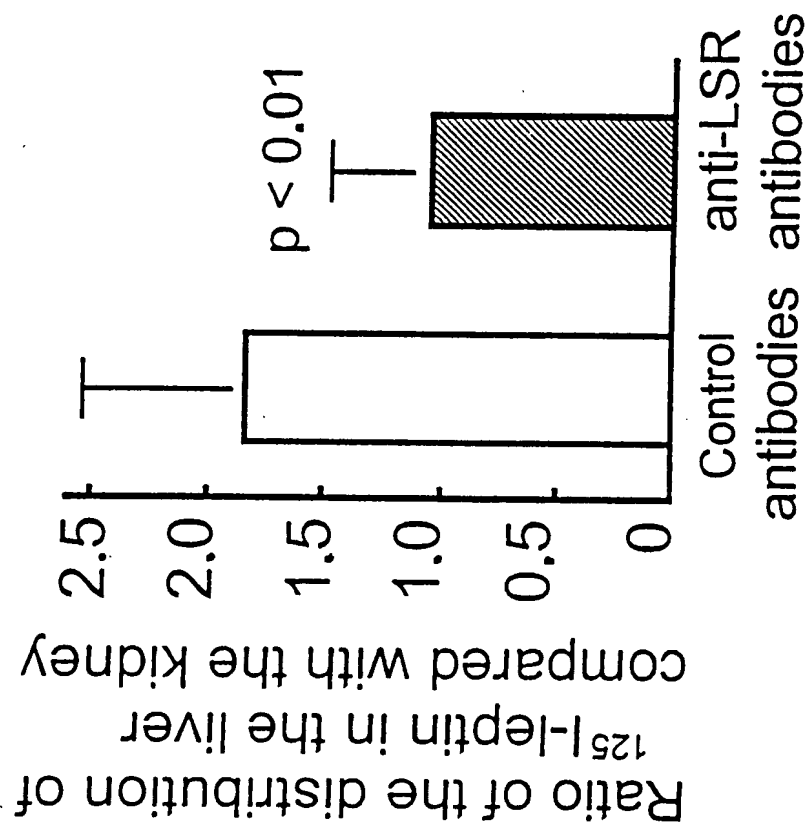


FIG. 22

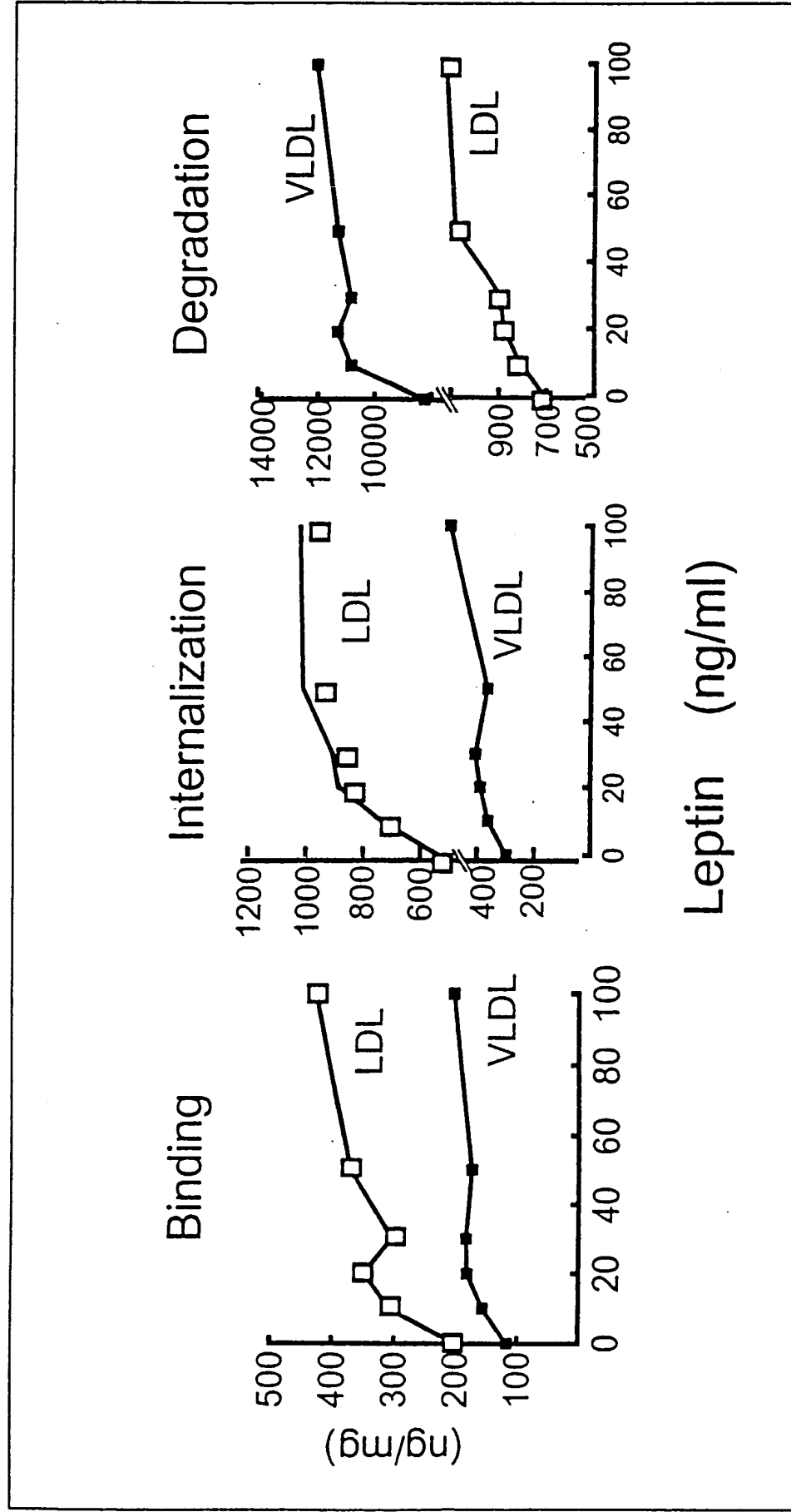


FIG. 23

FIG. 24A

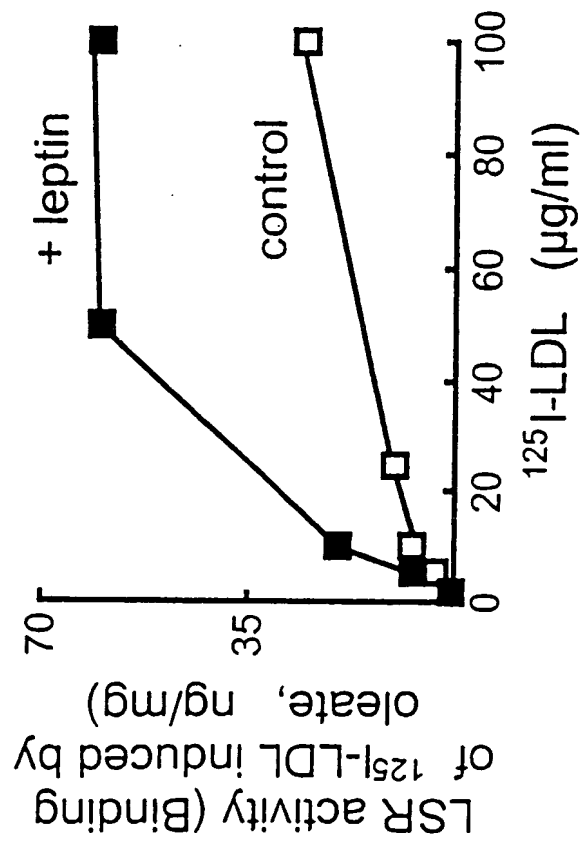
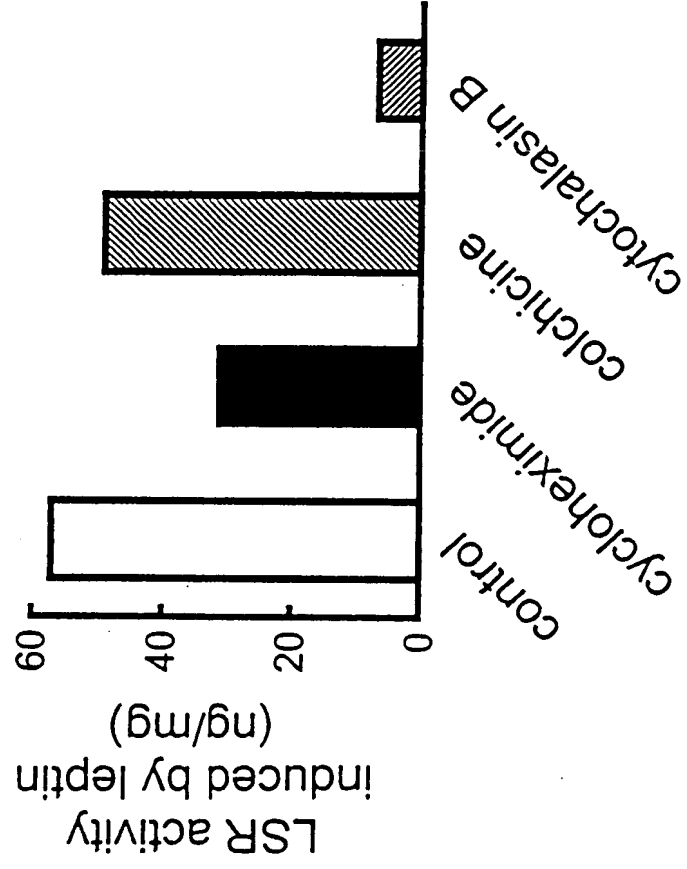


FIG. 24B



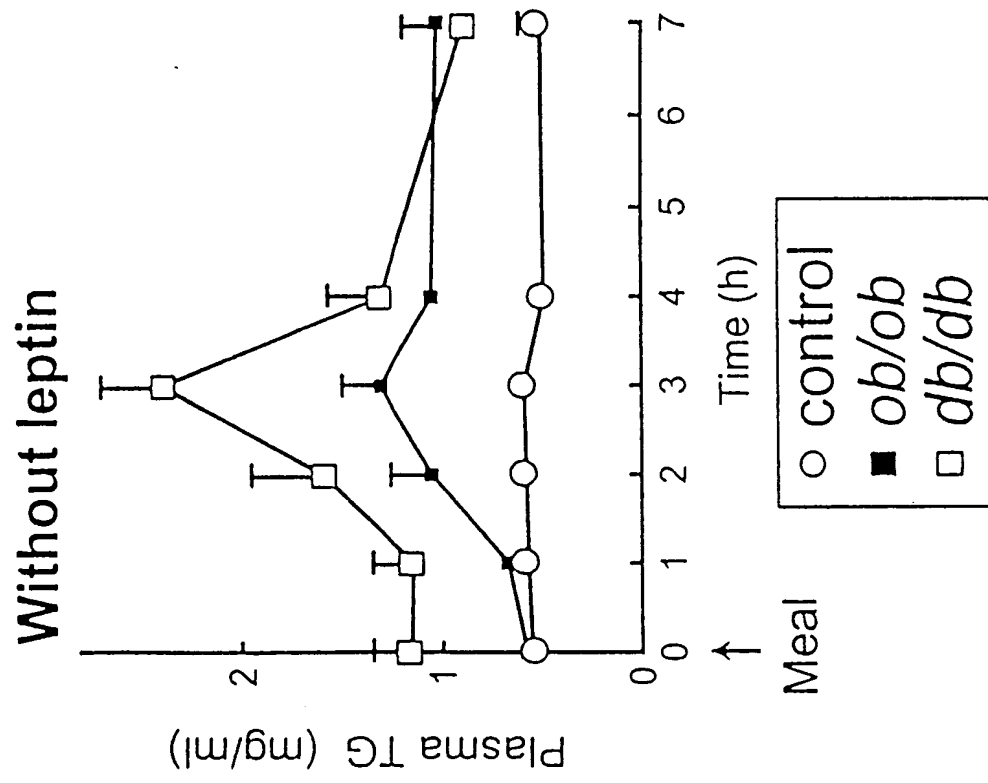


FIG. 25A

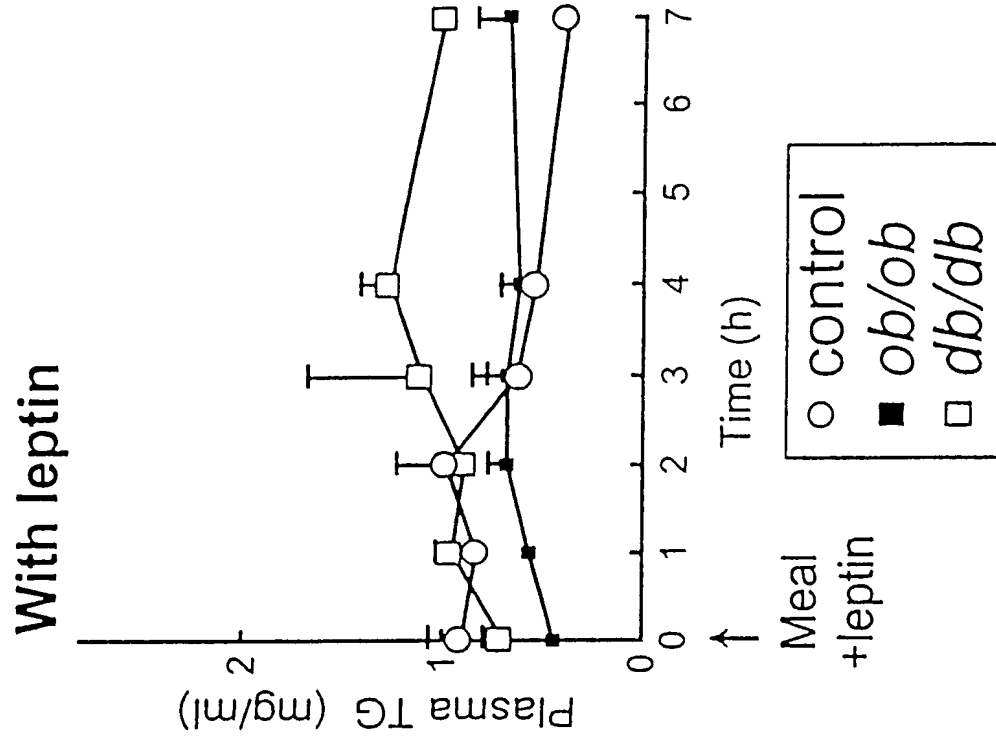


FIG. 25B

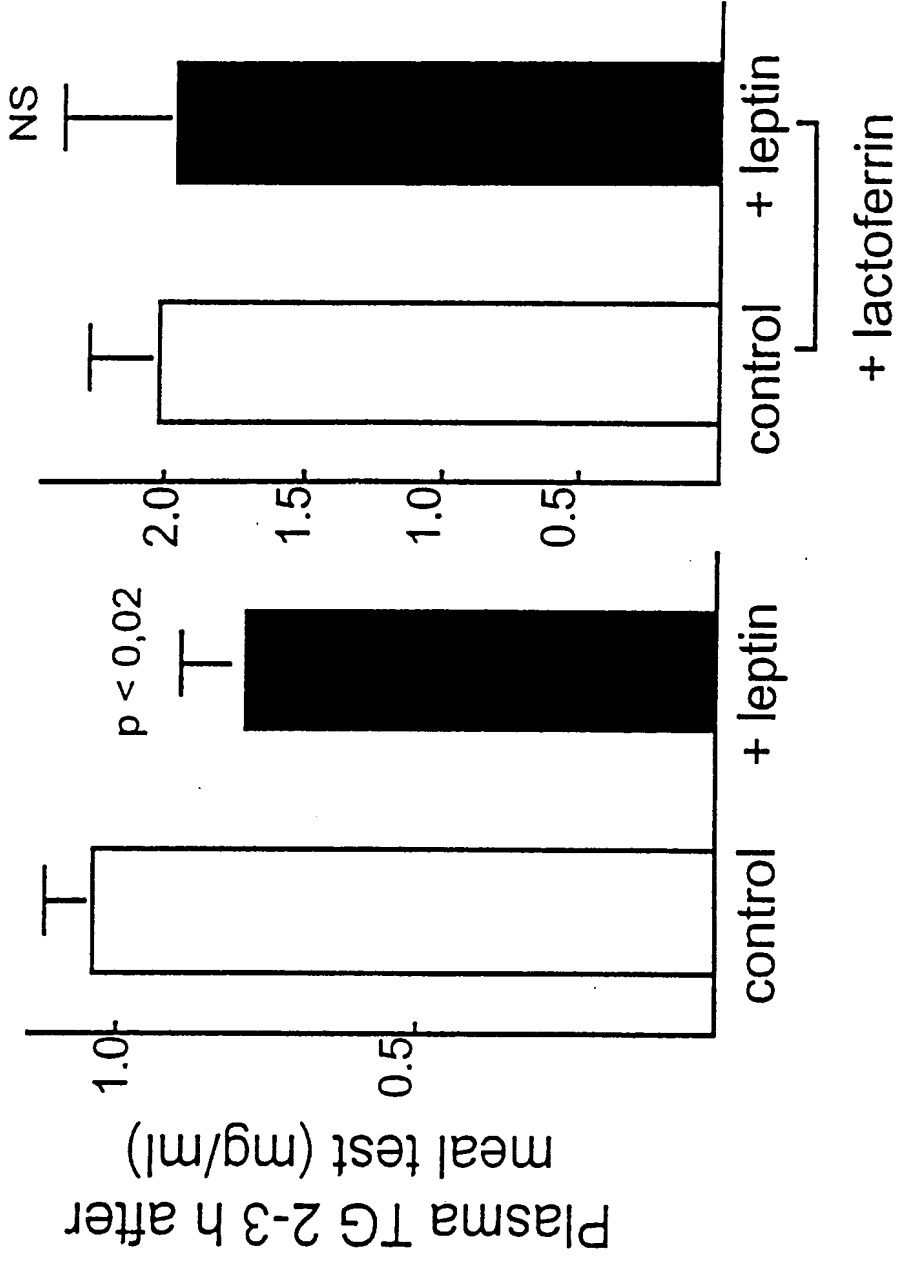


FIG. 26

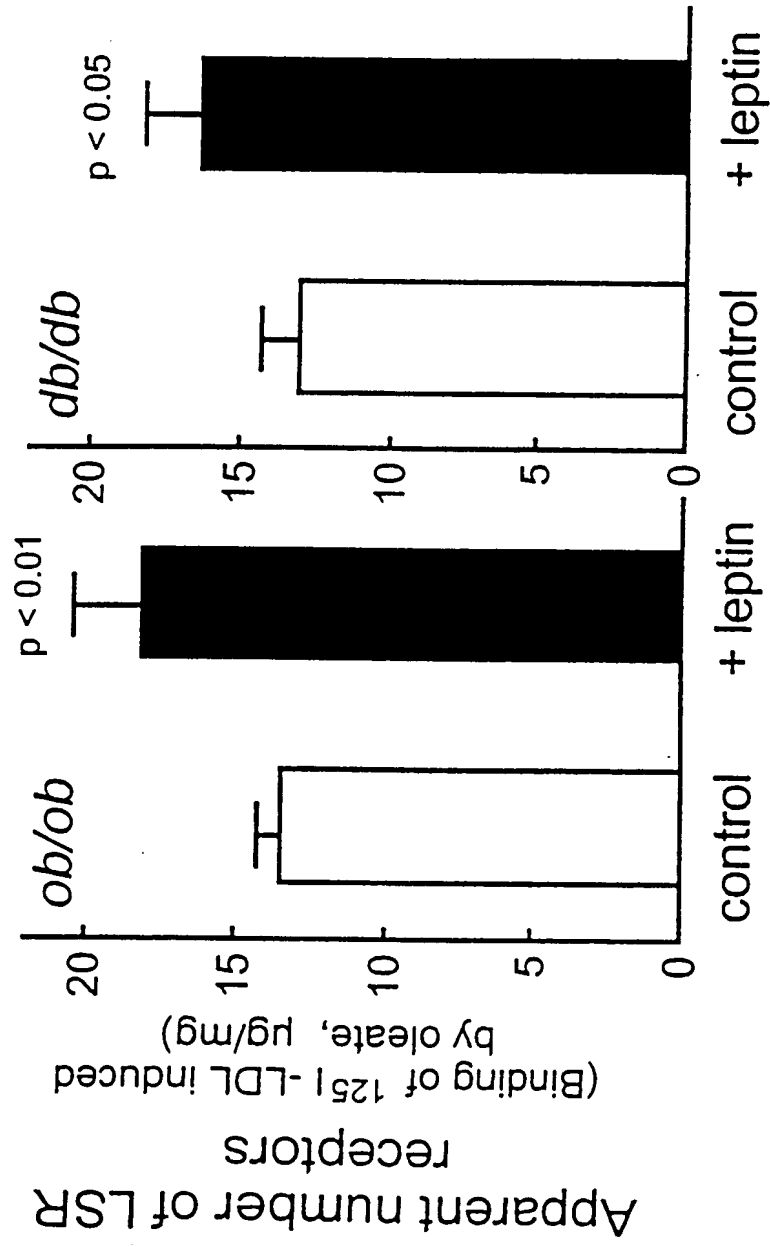


FIG. 27

FIG. 28A Weight

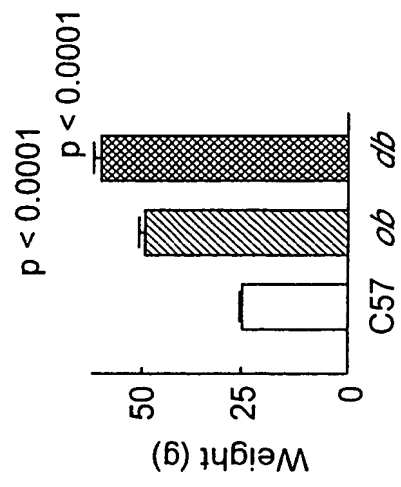


FIG. 28B

Postprandial lipemic response

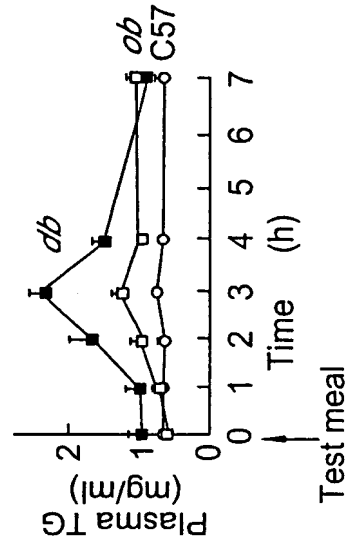


FIG. 28C

LSR activity

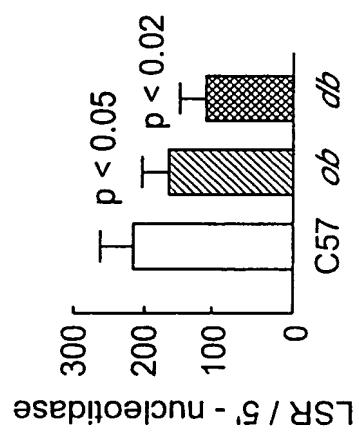


FIG. 28D

Northern blot

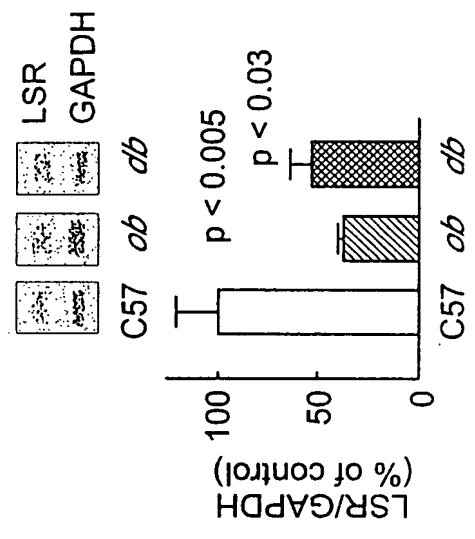


FIG. 29A Weight

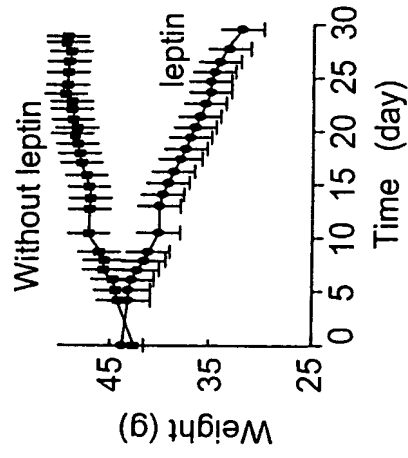


FIG. 29C LSR activity

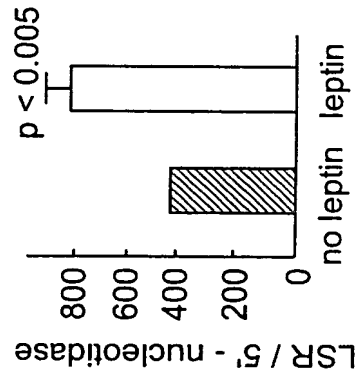


FIG. 29B

Postprandial lipemic response

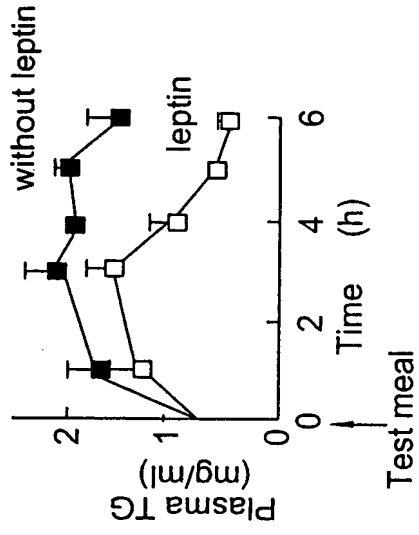
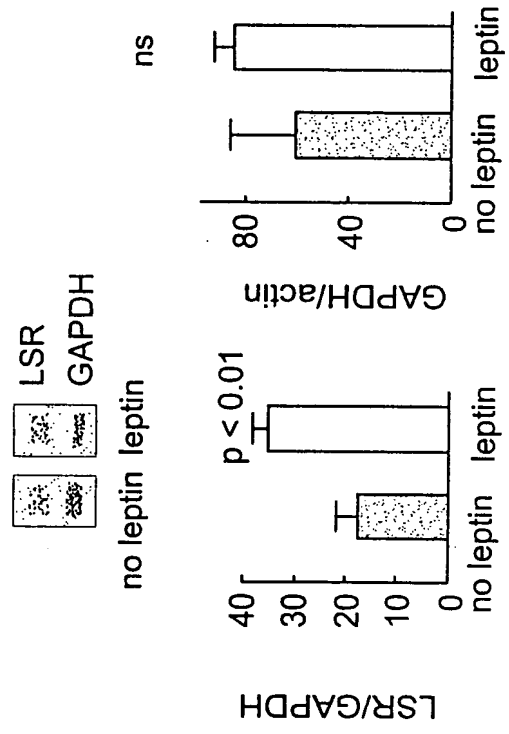


FIG. 29D

Northern blot



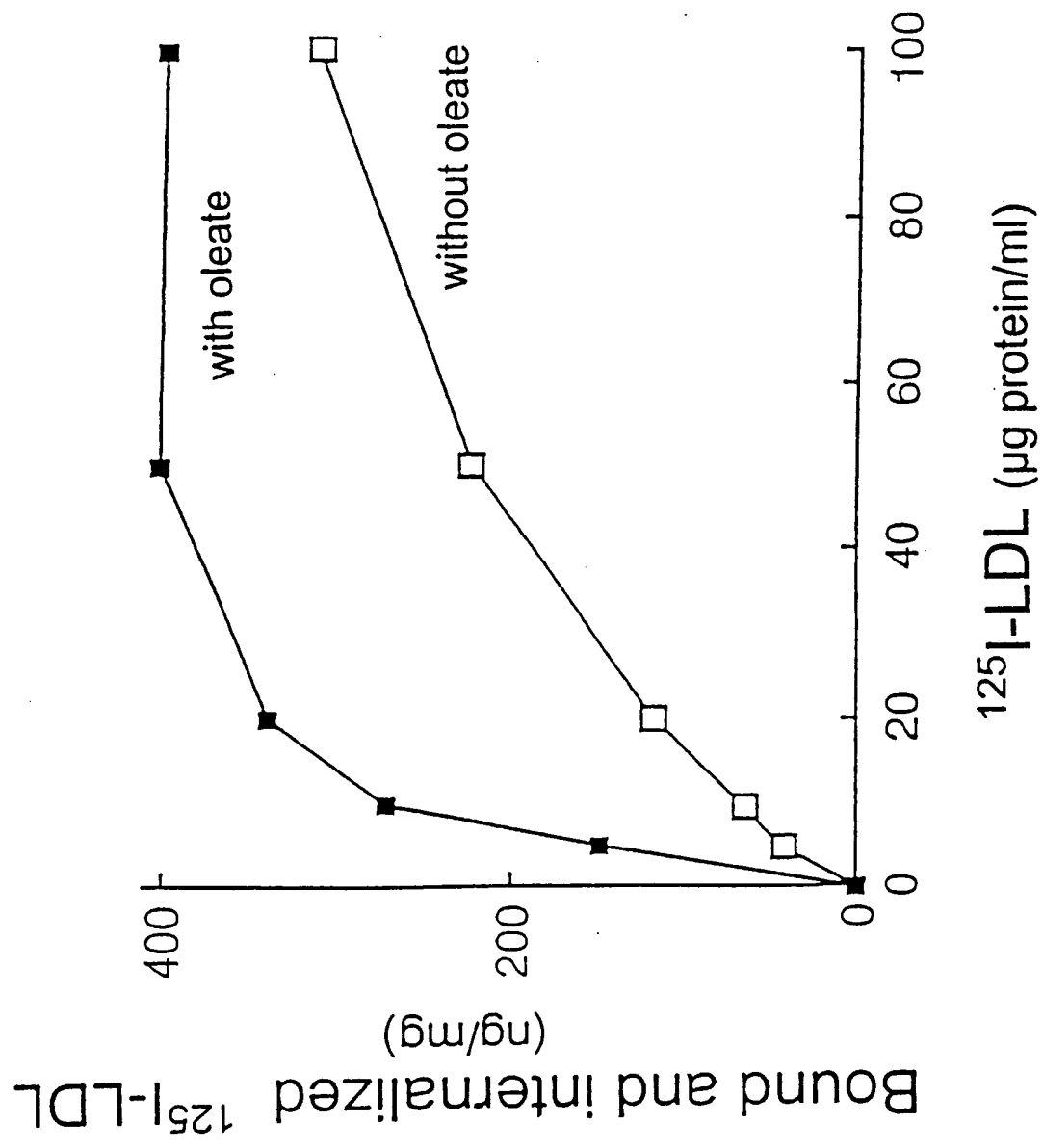


FIG. 30

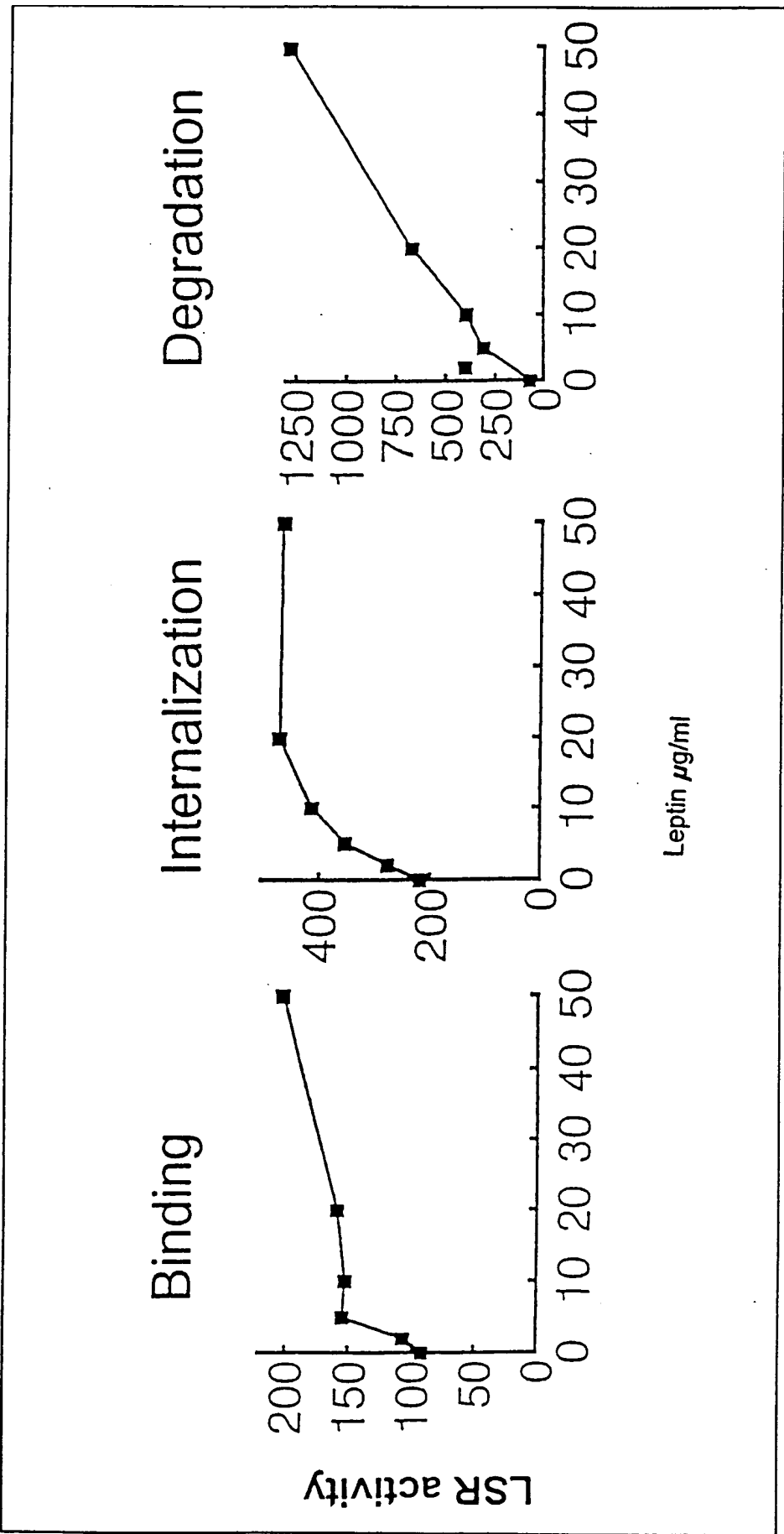


FIG. 31

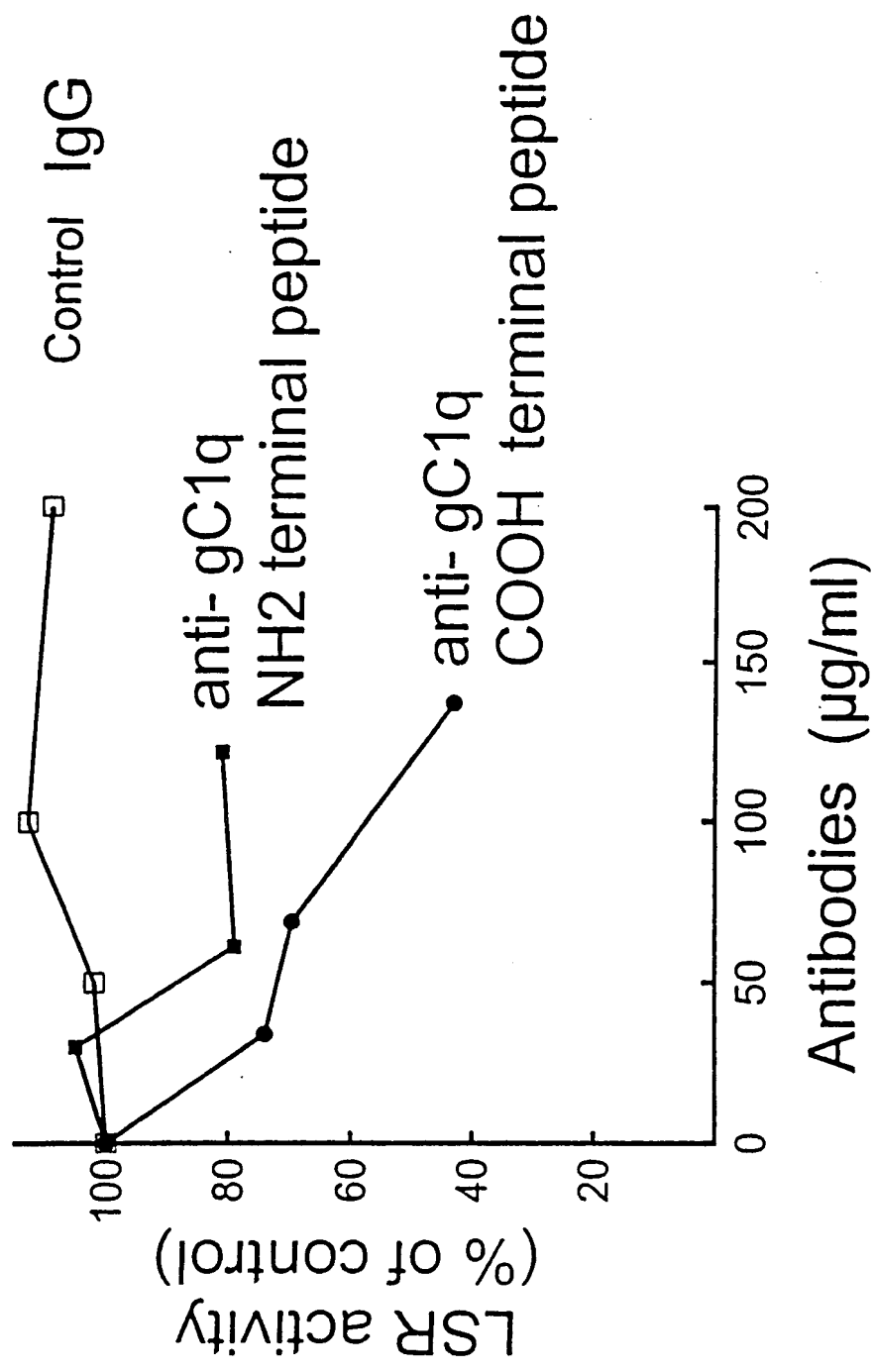


FIG. 32

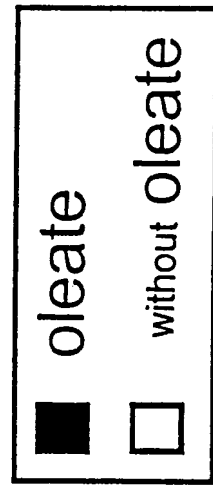
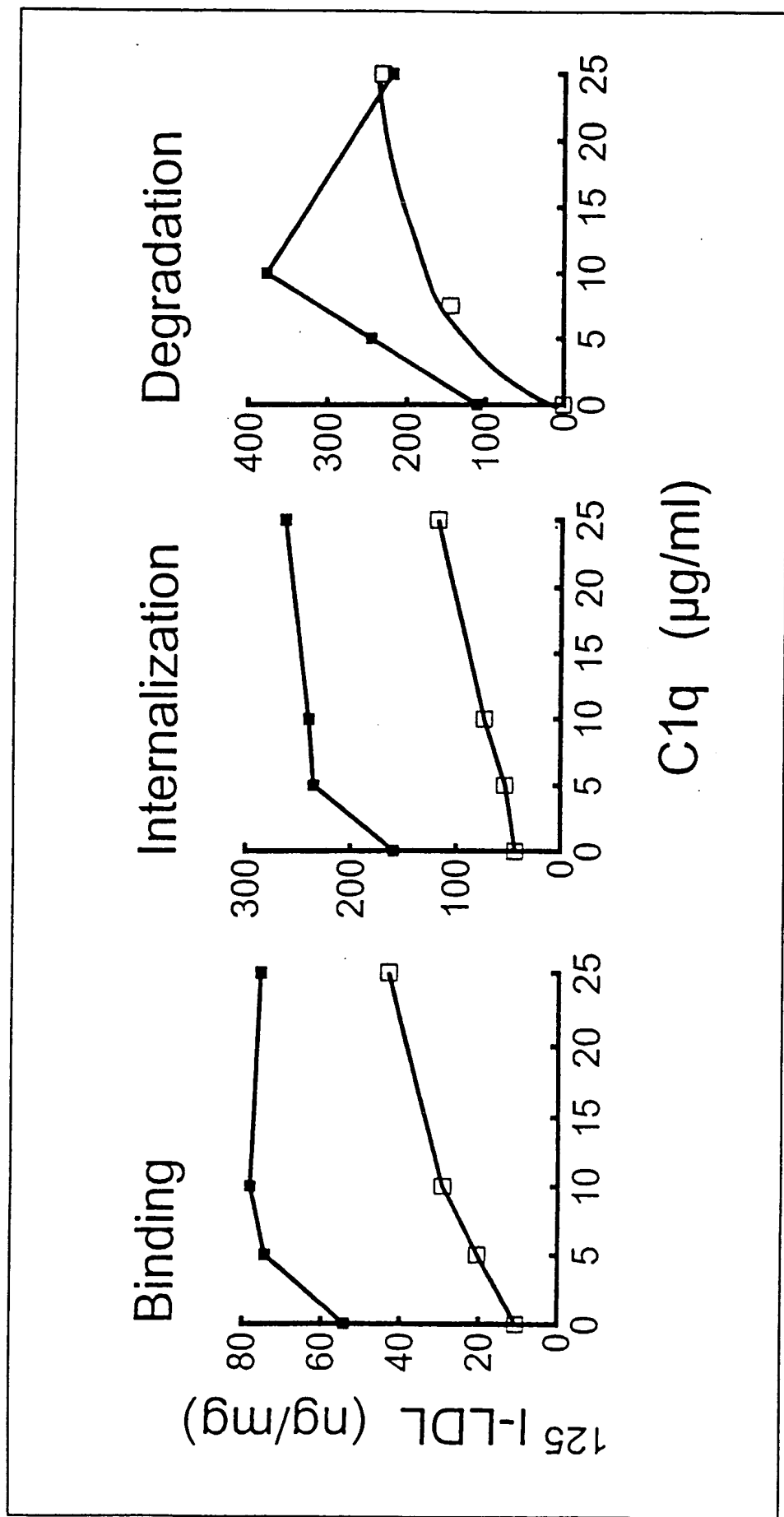


FIG. 33

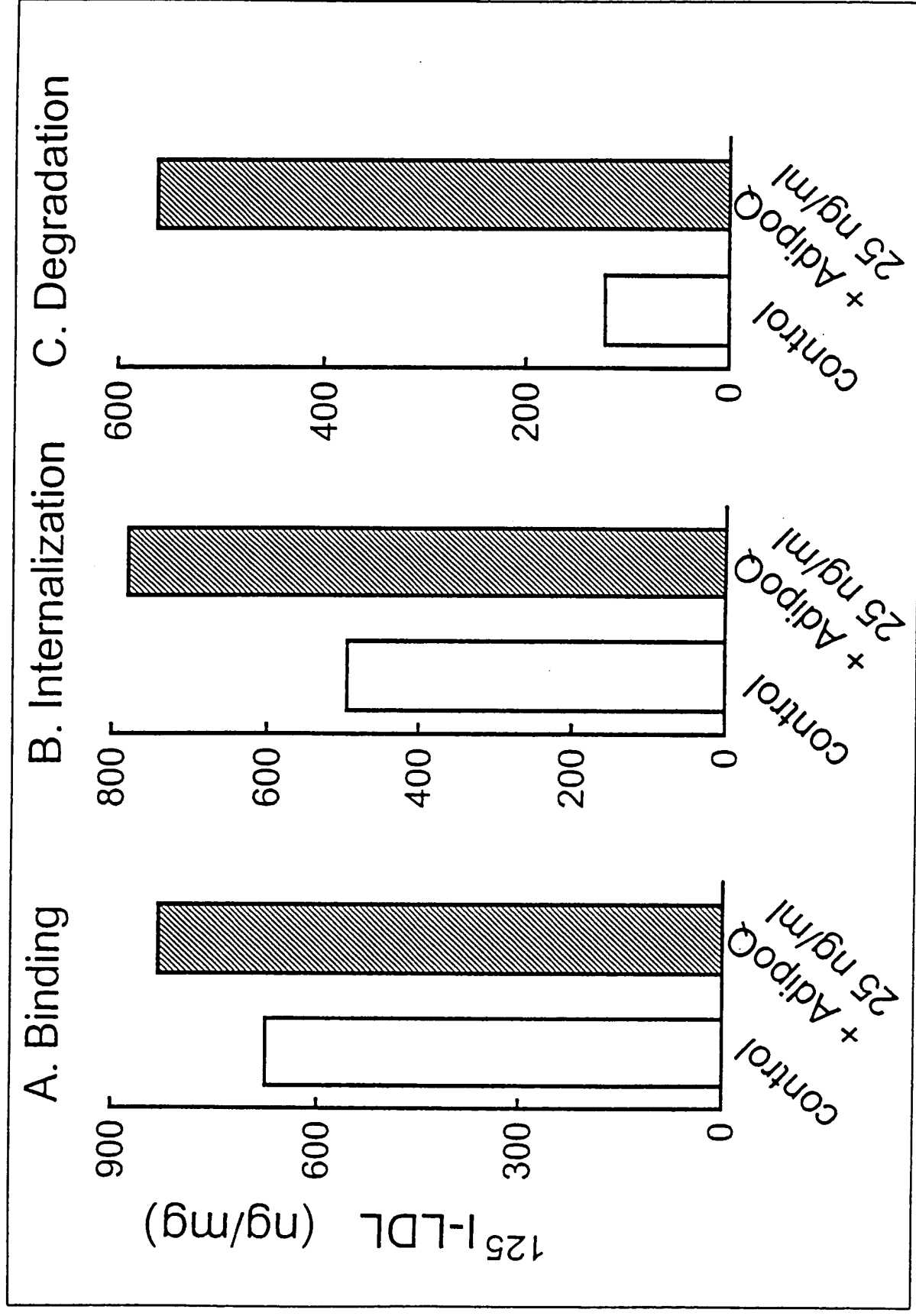


FIG. 34

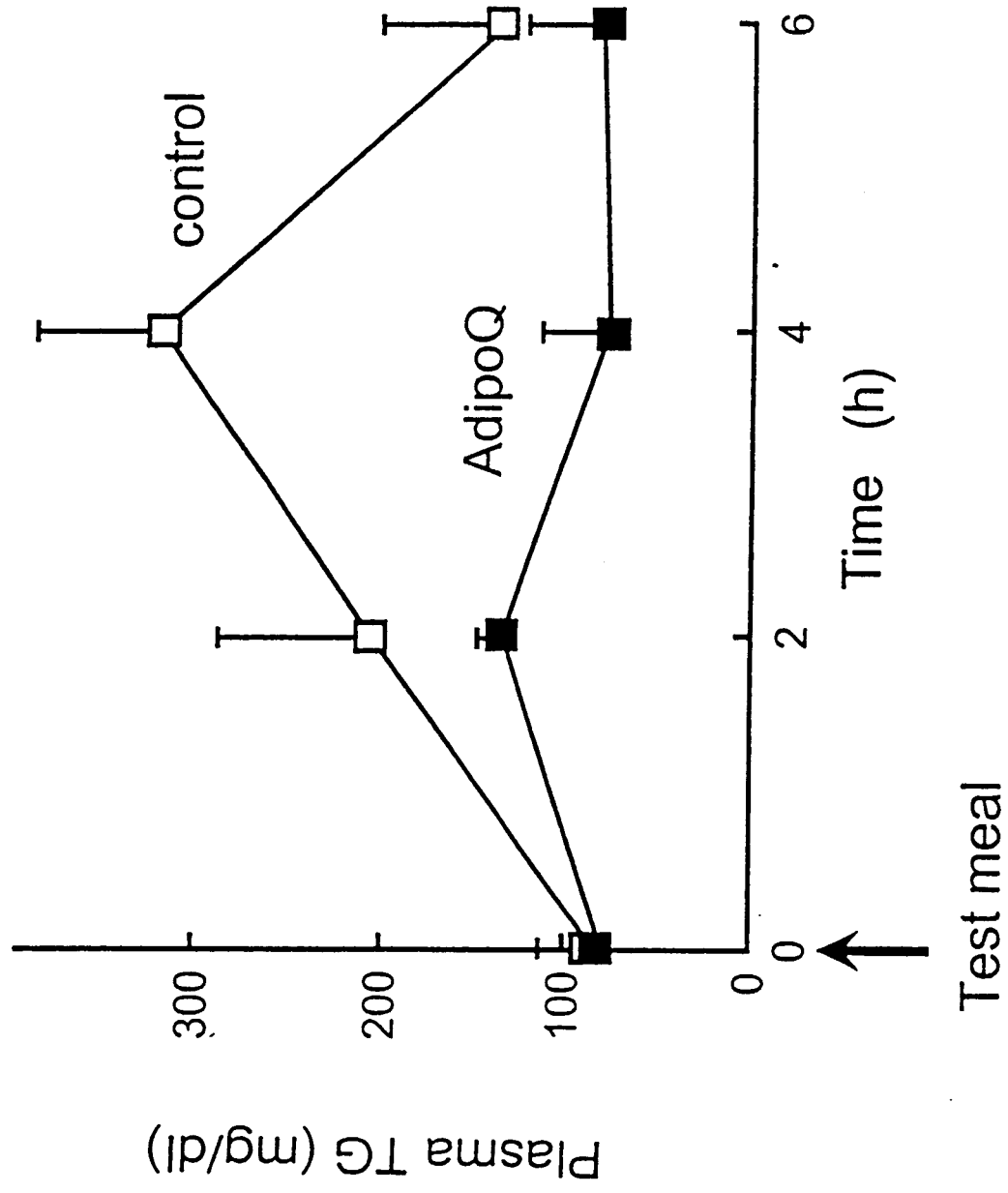
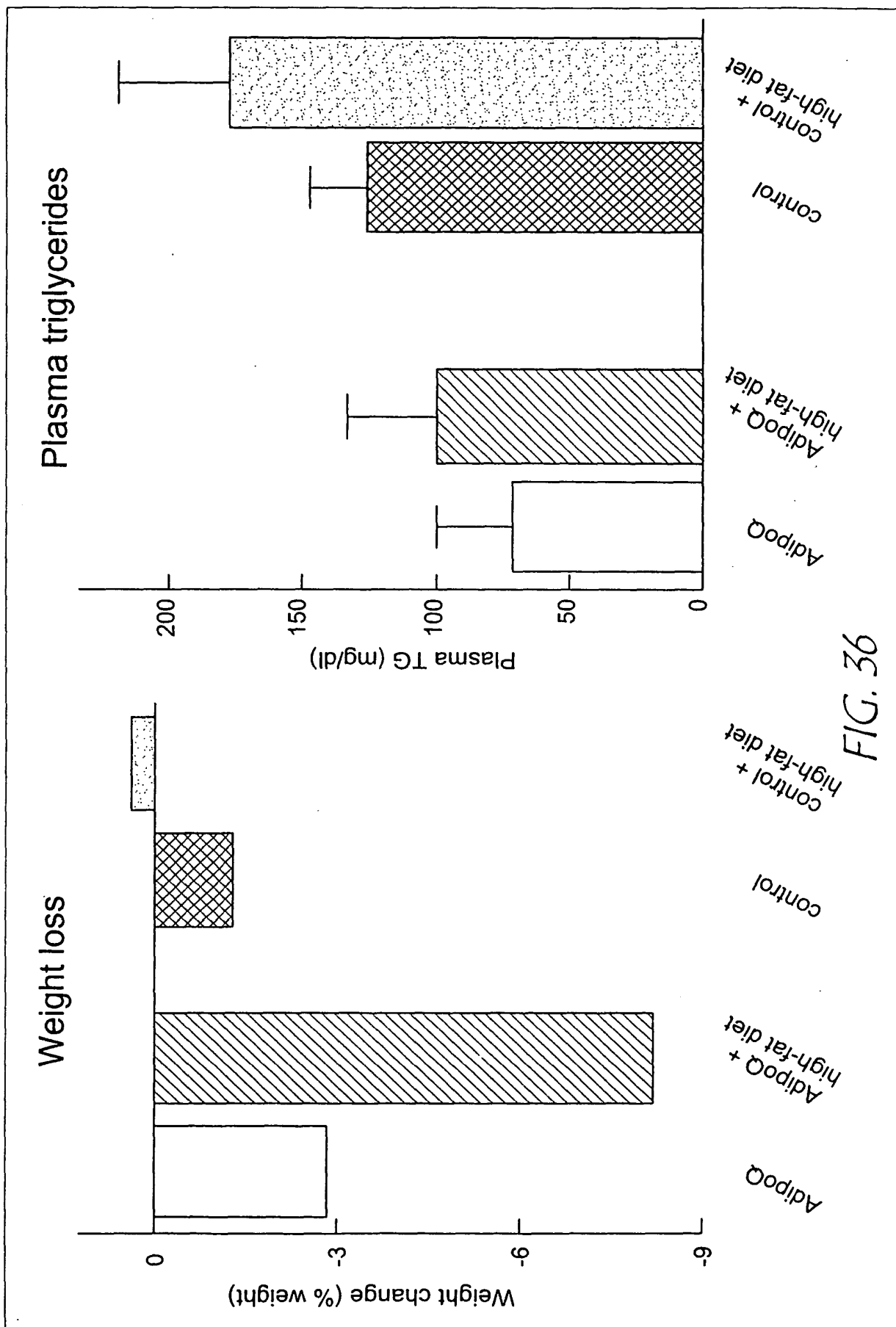


FIG. 35



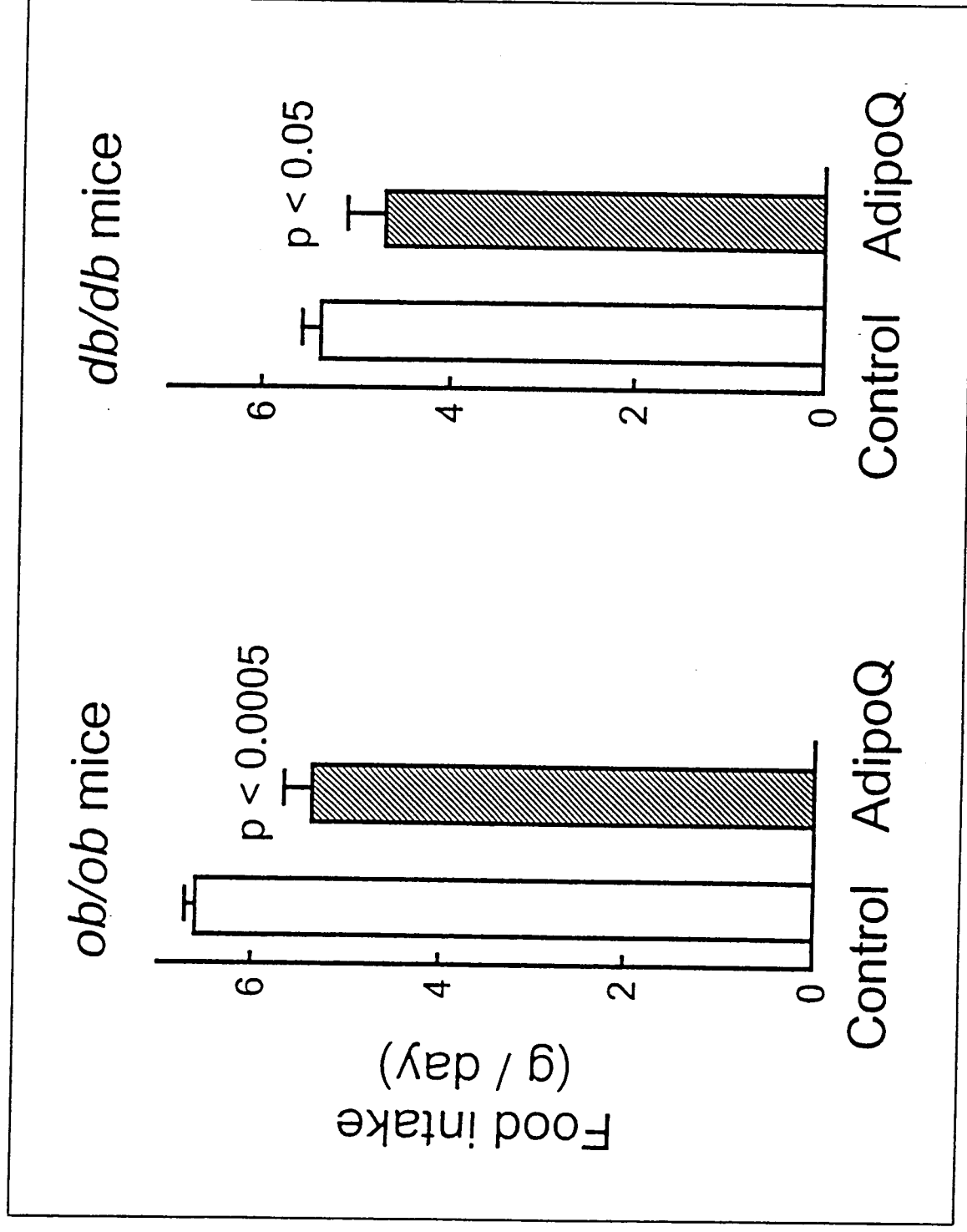


FIG. 37